

MISSOURI SPECIES AND COMMUNITIES* OF CONSERVATION CONCERN

Checklist



CHRIS LUKHAUP



Coldwater crayfish

JANUARY 2012

* Terrestrial Natural Communities. Does not include aquatic, geologic or cave communities.

SCI077

CONTENTS

ACKNOWLEDGMENTS.....	2
INTRODUCTION.....	3
TERMS AND DEFINITIONS	4
SPECIES CHANGES	8
TERRESTRIAL NATURAL COMMUNITIES.....	10
THREATENED AND ENDANGERED SPECIES IN MISSOURI	13
SPECIES AND STATUSES	
LICHENS.....	15
LIVERWORTS AND HORNWORTS	15
MOSSES.....	16
FERNs AND FERN ALLIES.....	19
FLOWERING PLANTS	19
FLATWORMS	30
MOLLUSKS	30
ARACHNIDS	32
CRUSTACEANS.....	32
MILLIPEDES	33
INSECTS	33
FISH.....	36
AMPHIBIANS.....	37
REPTILES.....	38
BIRDS (See Appendix A for tracking criteria)	38
MAMMALS	39
REFERENCES.....	41
FOR MORE INFORMATION (including Webpage and Citation).....	45
APPENDIX A: BIRD SPECIES TRACKED IN HERITAGE AND THEIR CRITERIA FOR EOs	46
PLANTS OF CONSERVATION CONCERN REPORTING FORM.....	48
ANIMALS OF CONSERVATION CONCERN REPORTING FORM.....	49
TERRESTRIAL NATURAL COMMUNITY REPORTING FORM	50
AQUATIC NATURAL COMMUNITY REPORTING FORM	51

ACKNOWLEDGMENTS

The following individuals contributed to the development of this document: Bruce Allen (Missouri Botanical Garden-MOBOT), Mike Arduser (Missouri Department of Conservation-MDC), Jeff Beringer (MDC), Jeff Briggler (MDC), Christopher Brown (Monsanto), Dorothy Butler (MDC), Rick Clawson (MDC-retired), Carl Darigo (MOBOT), Bob DiStefano (MDC), Bill Elliott (MDC), Tony Elliott (MDC), Scott Faiman (MDC), Debby Fantz (MDC), Dennis Figg (MDC), Jane Fitzgerald (Partners In Flight), Andy Forbes (MDC), Matt Gompper (University of Missouri - Columbia), Lonnie Hansen (MDC), Janet Haslerig (MDC), Peggy Horner (MDC), Bob Hrabik (MDC), Vicki Jackson (University of Central Missouri), Brad Jacobs (MDC), Tom Johnson (MDC-retired), Harold Kerns (MDC), Dave Knuth (MDC), Phil Koenig, Jeff Koppelman (MDC), Doug Ladd (The Nature Conservancy), Bill Mabee (MDC), Ted MacRae (Monsanto), Paul McKenzie (U.S. Fish and Wildlife Service-USFWS), Stephen McMurray (MDC), Travis Moore (MDC), Tim Nigh (MDC), Doug Novinger (MDC), William Pflieger (MDC-retired), Barry Poulton (U.S. Geological Survey), Lynn Robbins (MSU), Andy Roberts (USFWS), Randy Sarver (Department of Natural Resources), John Scheibe (SEMO), Tim Smith (MDC), Janet Sternburg (MDC), Richard Thoma (Monsanto), James Trager (MOBOT, Shaw Nature Reserve), Linden Trial (MDC-retired), George Yatskievych (MOBOT).

NOTICE: Please submit reports of all sightings of species and natural communities listed in this checklist on the forms provided in the back of this checklist. Special criteria apply to birds and reports should follow the guidelines listed in Appendix A.

INTRODUCTION

The Department of Conservation is charged with the protection and management of Missouri's fish, forest, and wildlife resources. In the brief time since the settlement of Missouri, many plants and animals have declined to levels of concern and some have disappeared entirely. The species cataloged in this checklist represent 18 percent of the native vascular plants, 14 percent of the nonvascular plants and 28 percent of the vertebrate animals in Missouri. Together, the animals, plants, and natural communities represent Missouri's biological diversity—a heritage worth protecting.

The Department maintains two references relating to the status of listed plants and animals in Missouri; the *Missouri Species and Communities of Conservation Concern Checklist* and the *Wildlife Code of Missouri*. The *Missouri Species and Communities of Conservation Concern Checklist* is utilized mostly for planning and communication purposes; however, **native invertebrate species listed herein have legal protection under the Wildlife Code. These native invertebrates may only be collected and held by holders of a Wildlife Collector's Permit as described in Rule 3CSR10-9.110(1)(B)**. All species in the State of Missouri are protected as biological diversity elements unless a method of legal harvest or take is described in the *Wildlife Code*. Species listed in the *Wildlife Code* under 3CSR10-4.111 are protected by the State Endangered Species Law 252.240. Some of the plants and animals in the checklist also appear in the *Wildlife Code* and are afforded special legal protection. All federally endangered and threatened plants and animals are protected by the Endangered Species Act of 1973 (ESA) and by Missouri State Endangered Species Law.

How to use the checklist

The checklist, developed with the cooperation of specialists throughout the state, is a list of plants, animals, and natural communities the Department of Conservation is particularly concerned about due to population declines or apparent vulnerability. The state rank (SRANK) shows the level of concern for each element's continued existence in Missouri. For each Element (i.e., species, subspecies or variety, or natural community type), at least 6 basic factors are considered when assigning an SRANK:

- the estimated number of Element Occurrences (EOs) throughout the Element's state range
- the estimated state abundance of the Element (measured by population, area, or stream length)
- the estimated size of the Element's state range
- the trend in the Element's distribution over its state range
- the estimated number of adequately protected EO^s throughout the Element's state range
- the degree to which the Element is threatened in the state

The checklist also indicates, for each lichen, plant, and animal Element, information on the Element's global rank (i.e., its relative rarity or endangerment in the world). This is useful for understanding the relative rarity or endangerment of an Element from a global perspective, i.e., beyond state, national, or regional boundaries. Global ranks (i.e., GRANKS), are completed by the Heritage/Conservation Data Center personnel and/or NatureServe. For each Element, the same six factors listed above for SRANKS are considered when assigning GRANKS, but in a global context. Additionally, the fragility or susceptibility of the Element to intrusion or disturbance is considered when assigning a global rank.

The Global and State Ranking System methodology was developed and provided by The Nature Conservancy, Conservation Science Division, in association with the Network of Natural Heritage Programs and Conservation Data Centers. NatureServe 2005. NatureServe Central Databases. Arlington, Virginia. U.S.A.

The checklist is arranged by broad taxonomic groups (e.g., terrestrial natural communities, flowering plants, insects, fish, and mammals). Within each group, species are arranged alphabetically by their scientific names and terrestrial natural communities by community type. Each Element is identified by its scientific name, common name, federal status, state status, global rank, and state rank.

TERMS AND DEFINITIONS

FEDERAL STATUS

The federal status is derived from the provisions of the Endangered Species Act of 1973, as amended, which is administered by the U.S. Fish and Wildlife Service. Passage of the Endangered Species Act of 1973 gave the United States one of the most far-reaching laws ever enacted by any country to prevent the extinction of imperiled animals and plants. Protecting endangered and threatened species and restoring them to the point where their existence is no longer jeopardized is the primary objective of the Fish and Wildlife Service's Endangered Species Program.

E: Endangered: Any species which is in danger of extinction throughout all or a significant portion of its range.

T: Threatened: Any species which is likely to become endangered within the foreseeable future.

C: Candidate: Plants or animals which the Service is reviewing for possible addition to the list of endangered and threatened species.

PE: Proposed Endangered: Species officially proposed for listing as endangered; final ruling not yet made.

PT: Proposed Threatened: Species officially proposed for listing as threatened; final ruling not yet made.

SAT: Threatened due to similarity of appearance: Species is listed for its protection due to similarity of appearance with another listed species. Species listed as SAT are not biologically threatened.

STATE STATUS

Rule 3CSR10-4.111 of the *Wildlife Code of Missouri* and certain state statutes apply to state *Code* listed species.

E: Endangered: Determined by the Department of Conservation under constitutional authority.

GLOBAL RANK

A numeric rank (G1 through G5) of relative endangerment based primarily on the number of occurrences of the Element (i.e., species, subspecies, or variety) globally. Other factors in addition to the number of occurrences are considered when assigning a rank, so the numbers of occurrences suggested for each numeric rank below are not absolute guidelines.

G1: Critically Imperiled: Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 5 or fewer occurrences or very few remaining individuals (<1,000) or acres (<2000) or linear miles.

G2: Imperiled: Imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction or elimination. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000) or acres (2,000 to 10,000) or linear miles (10 to 50).

GLOBAL RANK (Cont.)

G3: Vulnerable: Vulnerable globally either because very rare and local throughout its range, found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extinction or elimination. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.

G4: Apparently Secure: Uncommon but not rare (although it may be rare in parts of its range, particularly on the periphery), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern. Typically more than 100 occurrences and more than 10,000 individuals.

G5: Secure: Common; widespread and abundant (although it may be rare in parts of its range, particularly on the periphery). Not vulnerable in most of its range. Typically with considerably more than 100 occurrences and more than 10,000 individuals.

G#G#: Range Rank: A numeric range rank (e.g., G2G3) is used to indicate uncertainty about the exact status of a taxon. Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4).

GNR: Not Ranked: Status has not been assessed.

GU: Unrankable: Currently unrankable due to lack of information or due to substantially conflicting information about status or trends. Note: Whenever possible, the most likely rank is assigned and the question mark qualifier is added (e.g., G2?) to express uncertainty, or a range rank (e.g., G2G3) is used to delineate the limits (range) of uncertainty.

GH: Possibly Extinct/Extirpated: Known from only historical occurrences, but may nevertheless still be extant; further searching needed.

GX: Presumed Extinct: Believed to be extinct throughout its range. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SUBRANK:

T: Taxonomic Subdivision: Rank applies to a subspecies or variety.

QUALIFIERS:

?: Inexact Numeric Rank: Denotes inexact numeric rank. (The ? is not used in combination with range ranks.)

Q: Questionable Taxonomy: Distinctiveness of this entity as a taxon or community at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, inclusion of this taxon in another taxon, or inclusion of this community within another community, with the resulting Element having a lower-priority (numerically higher) conservation status rank.

STATE RANK

A numeric rank (S1 through S5) of relative endangerment based primarily on the number of occurrences of the Element (i.e., species, subspecies, or variety) within the state. Other factors considered when assigning a rank include: abundance, population trends, distribution, number of protected sites, degree of threat, suitable habitat trends, level of survey effort and life history. Thus, the number of occurrences suggested for each numeric rank below are not absolute guidelines. Missouri species of conservation concern typically do not fall within the range of S4-S5.

S1: Critically Imperiled: Critically imperiled in the nation or state because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically 5 or fewer occurrences or very few remaining individuals (<1,000).

S2: Imperiled: Imperiled in the nation or state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the nation or state (1,000 to 3,000). Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000).

S3: Vulnerable: Vulnerable in the nation or state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.

S4: Apparently Secure: Uncommon but not rare, and usually widespread in the nation or state. Possibly of long-term concern. Usually more than 100 occurrences and more than 10,000 individuals.

S5: Secure: Common, widespread, and abundant in the nation or state. Essentially ineradicable under present conditions. Typically with considerably more than 100 occurrences and more than 10,000 individuals.

S#S#: Range Rank: A numeric range rank (e.g., S2S3) is used to indicate the range of uncertainty about the exact status of the Element. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

S?: Unranked: Species is not yet ranked in the state.

SU: Unrankable: Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SE: Exotic: An exotic established in the state; may be native in nearby regions (e.g., house finch or catalpa in eastern U.S.)

SA: Accidental/Nonregular: Accidental or casual in the state (i.e., infrequent and outside usual range).

SP: Potential: Potentially occurring in the state but no occurrences reported.

SR: Reported: Element reported in the state but without persuasive documentation which would provide a basis for either accepting or rejecting (e.g., misidentified specimen) the report.

SRF: Reported Falsey: Element erroneously reported in the state and the error has persisted in the literature.

STATE RANK (Cont.)

SH: Historical: Element occurred historically in the state, with expectation that it may be rediscovered. May not have been verified in the past 20 years and suspected to be still extant.

SX: Extirpated: Element is believed to be extirpated from the state.

QUALIFIERS:

?: Inexact or Uncertain: Denotes inexact or uncertain numeric rank. (The ? qualifies the character immediately preceding it in the SRANK. The ? is not used in combination with range ranks.)

SPECIES CHANGES

STATUS CHANGES

PLANTS

Quercus stellata var. *margareta* (Sand Post Oak) is changed to *Q. margarettiae* with an SRANK of SRF. This taxon is now considered a species rather than a variety and with a slightly different spelling. The SRANK was changed from SH to SRF because specimens housed at the Missouri Botanical Garden were re-determined to be *Quercus stellata*.

INSECTS

Pardalophora saussurei (A Glade Grasshopper) from S3 to SU based on the single 1982 record (D. Bergmann); the species has not been found in Missouri since then.

FISH

Lepomis marginatus (Dollar Sunfish) from SU to S2 due to increased documentation of species occurrence.

AMPHIBIANS

Cryptobranchus alleganiensis bishopi (Ozark Hellbender) from federal Proposed Endangered to federal Endangered. Federal listing was warranted for this species due to information provided on the decline and threats.

BIRDS

Anhinga anhinga (Anhinga) from SX to SU due to recent nesting records, as reported by the Missouri Bird Records Committee, in southeastern Missouri.

Dendroica pensylvanica (Chestnut-sided Warbler) from S3 to SU, due to a lack of breeding records in recent years.

MAMMALS

Cervus elaphus (Elk or Wapiti) from SX to S? based on a 2011 reintroduction of 34 elk in Carter County, and a small group of elk reported in Taney county (origins unknown).

ADDITIONS

PLANTS

Calopogon oklahomensis (Grass Pink Orchid) as SU. USFW is currently reviewing a proposal to include *C. oklahomensis* on the Endangered Species List. More information on its distribution and occurrence is needed.

Calypogeia muelleriana var. *muelleriana* (A Liverwort) as SU. This species was formerly overlooked but recently found by John Atwood and Nels Holmberg in Ste. Genevieve county surveys.

Cephalozia connivens (A Liverwort) as SU. This species was formerly overlooked but recently found by John Atwood and Nels Holmberg in Ste. Genevieve county surveys.

Lophozia incisa (A Liverwort) as SU. This species was recently discovered in Missouri by John Atwood in Ste. Genevieve county.

ADDITIONS (Cont.)

BIRDS

Athene cunicularia (Burrowing Owl) as SX due to historical nesting records in Missouri.

Dendroica virens (Black-throated Green Warbler) as SU, a new state record found in Reynolds county by Michael Nicosia and Megan Blair.

Spinus pinus (Pine Siskin) as SU. Sporadic nesting records throughout the state.

DELETIONS

FISH

Hiodon tergisus (Mooneye) from S3 to S5 due to increasing abundance and widespread distribution.

Macrhybopsis meeki (Sicklefin Chub) from S3 to S5 due to increasing abundance in the Missouri River system of Missouri.

Macrhybopsis storriana (Silver Chub) from S3 to S5 due to increasing occurrence.

BIRDS

Ectopistes migratorius (Passenger Pigeon). This species is extinct. Historical records are reported in Missouri.

Conuropsis carolinensis (Carolina Parakeet). This species is extinct. Historical records are reported in Missouri.

TAXONOMIC CHANGES

PLANTS

Quercus stellata var. *margarettae* (Sand Post Oak) is changed to *Q. margarettiae* with an SRANK of SRF. This taxon is now considered a species rather than a variety and with a slightly different spelling. The SRANK was changed from SH to SRF because specimens housed at the Missouri Botanical Garden were re-determined to be *Quercus stellata*.

BIRDS

Aimophila aestivalis to *Peucaea aestivalis* (Bachman's Sparrow).

MAMMALS

Cervus canadensis to *Cervus elaphus* (Elk or Wapiti).

Spermophilus franklinii to *Poliocitellus franklinii* (Franklin's Ground Squirrel).

Spermophilus tridecemlineatus to *Ictidomys tridecemlineatus* (Thirteen-lined Ground Squirrel).

TERRESTRIAL NATURAL COMMUNITIES

In addition to lichens, plants, and animals, the Missouri Natural Heritage Program tracks occurrences of high quality natural communities. Terrestrial natural communities are interrelated assemblages of plants, animals, and other living organisms incorporated into their physical surroundings- including geologic substrate, soils, topography and aspect- that are shaped by climate and other natural processes. High quality sites are ones that provide diverse assemblages of native species and represent the least distressed examples of ecosystems that existed in Missouri prior to European settlement. These natural communities frequently provide the habitat necessary for Missouri's listed lichens, plants, and animals. Because the Missouri Department of Conservation tracks occurrences of high quality natural communities, we encourage the submission of site information on natural communities as we do for species listed in this Checklist.

State ranks are assigned to natural communities using criteria that are similar to species SRANKs. (Criteria include total number of occurrences, number of occurrences by grade [A-D], total acres, number of counties in which the community type occurs, number of protected occurrences, and threats.) Global ranks are not applied to communities due to the difficulty in reconciling Missouri's classification system with larger scale classifications.

Natural community types have been classified using The Terrestrial Natural Communities of Missouri (Nelson, 2005). This classification system was developed to accomplish an inventory of the state's natural communities, prioritized by quality, size and distribution, to help meet land protection goals. The Terrestrial Natural Communities tracked in Heritage (high-quality examples) are listed below with their SRANKs by major community type.

COMMUNITY TYPE

FOREST	SRANK
Dry-Mesic Loess/Glacial Till Forest	S3
Mesic Loess/Glacial Till Forest	S3
Dry-Mesic Limestone/Dolomite Forest	S3
Mesic Limestone/Dolomite Forest	S3
Dry-Mesic Chert Forest	S4
Dry-Mesic Sandstone Forest	S3
Mesic Sandstone Forest	S2
Dry-Mesic Sand Forest	S1
Mesic Sand Forest	S1
Dry-Mesic Igneous Forest	S4
Dry-Mesic Bottomland Forest	S3
Mesic Bottomland Forest	S2
Wet-Mesic Bottomland Forest	S2
Wet Bottomland Forest	S3
Riverfront Forest	S4
Total Forest Types:	15

WOODLAND	<u>SRANK</u>
Dry Loess/Glacial Till Woodland	S3
Dry-Mesic Loess/Glacial Till Woodland	S3
Dry Limestone/Dolomite Woodland	S3
Dry-Mesic Limestone/Dolomite Woodland	S3
Dry Chert Woodland	S4
Dry-Mesic Chert Woodland	S4
Dry Sandstone Woodland	S3
Dry-Mesic Sandstone Woodland	S3
Dry Sand Woodland	S1
Dry-Mesic Sand Woodland	S2
Dry Igneous Woodland	S4
Dry-Mesic Igneous Woodland	S4
Upland Flatwoods	S2
Bottomland Flatwoods	S1
Sinkhole Flatwoods	S2
Dry-Mesic Bottomland Woodland	S2
Mesic Bottomland Woodland	SH
Wet-Mesic Bottomland Woodland	S1
Total Woodland Types:	18

SAVANNA	<u>SRANK</u>
Dry-Mesic Loess/Glacial Till Savanna	S1
Mesic Loess/Glacial Till Savanna	SH
Limestone/Dolomite Savanna	SH
Chert Savanna	SH
Sandstone/Shale Savanna	SH
Sand Savanna	S1
Total Savanna Types:	6

PRAIRIE	<u>SRANK</u>
Dry Loess/Glacial Till Prairie	S2
Dry-Mesic Loess/Glacial Till Prairie	S1
Mesic Loess/Glacial Till Prairie	S1
Dry Limestone/Dolomite Prairie	S2
Dry-Mesic Limestone/Dolomite Prairie	S2
Dry-Mesic Chert Prairie	S3
Dry-Mesic Sandstone/Shale Prairie	S3
Sand Prairie	S1
Prairie Swale	S2
Hardpan Prairie	S2
Wet-Mesic Bottomland Prairie	S1
Wet Bottomland Prairie	S1
Total Prairie Types:	12

GLADE	<u>SRANK</u>
Limestone Glade	S2
Dolomite Glade	S3
Chert Glade	S2
Sandstone Glade	S2
Igneous Glade	S3
Total Glade Types:	5

CLIFF/TALUS	<u>SRANK</u>
Dry Limestone/Dolomite Cliff	S5
Moist Limestone/Dolomite Cliff	S4
Dry Sandstone Cliff	S4
Moist Sandstone Cliff	S3
Dry Chert Cliff	S3
Moist Chert Cliff	S2
Dry Igneous Cliff	S4
Moist Igneous Cliff	S4
Unconsolidated Bluff	S3
Limestone/Dolomite Talus	S4
Igneous Talus	S4
Total Cliff/Talus Types:	11

STREAM EDGE	<u>SRANK</u>
Sand Bar	S3
Gravel Wash	S3
Stream Bank/River Bank	S2
Total Stream Edge Types:	3

WETLAND	<u>SRANK</u>
Marsh	S2
Shrub Swamp	S2
Swamp	S1
Pond Marsh	S1
Pond Shrub Swamp	S2
Pond Swamp	S1
Ozark Fen	S2
Prairie Fen	S2
Forested Fen	S2
Glacial Fen	S1
Acid Seep	S2
Saline Seep	S1
Limestone/Dolomite Spring	S3
Total Wetland Types:	13

CAVE	<u>SRANK</u>
Cave	S4
Cave Spring	S4
Spring	S4
Total Cave Types:	3
Total Terrestrial Natural Communities:	86

THREATENED AND ENDANGERED SPECIES IN MISSOURI

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE¹ STATUS</u>	<u>FEDERAL² STATUS</u>
PLANTS			
<i>Asclepias meadii</i>	Mead's Milkweed	Endangered	Threatened
<i>Boltonia decurrens</i>	Decurrent False Aster	Endangered	Threatened
<i>Geocarpon minimum</i>	Geocarpon	Endangered	Threatened
<i>Helenium virginicum</i>	Virginia Sneezeweed	Endangered	Threatened
<i>Isotria medeoloides</i>	Small Whorled Pogonia ³	Endangered	Threatened
<i>Lindera melissifolia</i>	Pondberry	Endangered	Endangered
<i>Physaria filiformis</i>	Missouri Bladder-pod	Endangered	Threatened
<i>Platanthera leucophaea</i>	E. Prairie Fringed Orchid ³	Endangered	Threatened
<i>Platanthera praeclara</i>	W. Prairie Fringed Orchid	Endangered	Threatened
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	Endangered	Endangered
MOLLUSKS			
<i>Antrobia culveri</i>	Tumbling Creek Cavesnail	Endangered	Endangered
<i>Cumberlandia monodonta</i>	Spectaclecase		Candidate
<i>Elliptio crassidens</i>	Elephantear	Endangered	
<i>Epioblasma florentina curtisii</i>	Curtis Pearlmussel	Endangered	Endangered
<i>Epioblasma triquetra</i>	Snuffbox	Endangered	
<i>Fusconaia ebena</i>	Ebonyshell	Endangered	
<i>Lampsilis abrupta</i>	Pink Mucket	Endangered	Endangered
<i>Lampsilis higginsii</i>	Higgins Eye	Endangered	Endangered
<i>Lampsilis rafinesqueana</i>	Neosho Mucket		Candidate
<i>Leptodea leptodon</i>	Scaleshell	Endangered	Endangered
<i>Plethobasus cyphyus</i>	Sheepnose	Endangered	Candidate
<i>Potamilus capax</i>	Fat Pocketbook	Endangered	Endangered
<i>Quadrula fragosa</i>	Winged Mapleleaf	Endangered	Endangered
<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot		Candidate
INSECTS			
<i>Nicrophorus americanus</i>	American Burying Beetle ³	Endangered	Endangered
<i>Somatochlora hineana</i>	Hine's Emerald Dragonfly	Endangered	Endangered
FISH			
<i>Acipenser fulvescens</i>	Lake Sturgeon	Endangered	
<i>Amblyopsis rosae</i>	Ozark Cavefish	Endangered	Threatened
<i>Cottus</i> sp. cf. <i>carolinae</i>	Grotto Sculpin		Candidate
<i>Crystallaria asprella</i>	Crystal Darter	Endangered	
<i>Etheostoma cragini</i>	Arkansas Darter		Candidate
<i>Etheostoma fusiforme</i>	Swamp Darter	Endangered	
<i>Etheostoma histrio</i>	Harlequin Darter	Endangered	
<i>Etheostoma nianguae</i>	Niangua Darter	Endangered	Threatened
<i>Etheostoma parvipinne</i>	Goldstripe Darter	Endangered	
<i>Etheostoma whipplei</i>	Redfin Darter	Endangered	
<i>Forbesichthys agassizi</i>	Spring Cavefish	Endangered	
<i>Hybognathus hayi</i>	Cypress Minnow	Endangered	
<i>Notropis maculatus</i>	Taillight Shiner	Endangered	
<i>Notropis sabinae</i>	Sabine Shiner	Endangered	
<i>Notropis topeka</i>	Topeka Shiner	Endangered	Endangered
<i>Noturus eleutherus</i>	Mountain Madtom	Endangered	
<i>Noturus placidus</i>	Neosho Madtom	Endangered	Threatened
<i>Percina nasuta</i>	Longnose Darter	Endangered	
<i>Platygobio gracilis</i>	Flathead Chub	Endangered	
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	Endangered	Endangered
<i>Scaphirhynchus platorynchus</i>	Shovelnose Sturgeon		Threatened/SA
<i>Umbratilis</i>	Central Mudminnow	Endangered	

THREATENED AND ENDANGERED SPECIES IN MISSOURI (Cont.)

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATE¹ STATUS</u>	<u>FEDERAL² STATUS</u>
AMPHIBIANS			
<i>Cryptobranchus a. alleganiensis</i>	Eastern Hellbender	Endangered	
<i>Cryptobranchus a. bishopi</i>	Ozark Hellbender	Endangered	Endangered
REPTILES			
<i>Deirochelys reticularia maria</i>	Western Chicken Turtle	Endangered	
<i>Emydoidea blandingii</i>	Blanding's Turtle	Endangered	
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	Endangered	
<i>Nerodia cyclopion</i>	Mississippi Green Water Snake ³	Endangered	
<i>Sistrurus c. catenatus</i>	Eastern Massasauga	Endangered	Candidate
BIRDS			
<i>Botaurus lentiginosus</i>	American Bittern	Endangered	
<i>Circus cyaneus</i>	Northern Harrier	Endangered	
<i>Egretta thula</i>	Snowy Egret	Endangered	
<i>Falco peregrinus</i>	Peregrine Falcon	Endangered	
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	Endangered	
<i>Peacaea aestivalis</i>	Bachman's Sparrow	Endangered	
<i>Rallus elegans</i>	King Rail	Endangered	
<i>Sterna antillarum athalassos</i>	Interior Least Tern	Endangered	
<i>Tympanuchus cupido</i>	Greater Prairie-chicken	Endangered	
MAMMALS			
<i>Canis lupus</i>	Gray Wolf		Endangered
<i>Corynorhinus townsendii ingens</i>	Ozark Big-eared Bat ³	Endangered	Endangered
<i>Lepus californicus</i>	Black-tailed Jackrabbit	Endangered	
<i>Myotis grisescens</i>	Gray Bat	Endangered	Endangered
<i>Myotis sodalis</i>	Indiana Bat	Endangered	Endangered
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	Endangered	

¹ Listed in the Wildlife Code of Missouri, Rule 3 CSR10-4, 111 Endangered Species.

²Federally Listed Species under the Endangered Species Act (ESA) of 1973 as Amended:

Endangered = Any species that is in danger of extinction throughout all or a significant portion of its range.

Threatened = Any species that is likely to become endangered within the foreseeable future.

Candidate = Plants or animals that the U.S. Fish & Wildlife Service is reviewing for possible addition to the list of Endangered and Threatened species.

Proposed = Any species proposed for listing as Threatened or Endangered by the U.S. Fish & Wildlife Service.

Threatened/SA = Any species listed Threatened due to Similarity of Appearance by the U.S. Fish & Wildlife Service.

³Considered extirpated, historical or accidental occurrence in Missouri.

SPECIES AND STATUSES

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
LICHENS					
<i>Cladonia cervicornis</i> ssp. <i>verticillata</i>	A Lichen	S?	G5TNR		
<i>Cladonia leporina</i>	A Lichen	S2	G4G5		
<i>Coenogonium missouriense</i>	Missouri Cave Lichen	SH	GH		
<i>Collema nigrescens</i>	A Lichen	SU	G5?		
<i>Dendriscocaulon intricatum</i>	A Lichen	S?	GUQ		
<i>Dermatocarpon moulinii</i>	A Lichen	S1	GNR		
<i>Dibaeis absoluta</i>	A Lichen	S1	G4		
<i>Flavoparmelia rutidota</i>	A Lichen	S?	G4G5		
<i>Graphina sophisticascens</i>	A Lichen	SH	GNR		
<i>Imshaugia aleurites</i>	A Lichen	S?	G5		
<i>Lecidea lurida</i>	A Lichen	SU	GNR		
<i>Pannaria rubiginosa</i>	A Lichen	S1	G4G5		
<i>Parmelia squarrosa</i>	A Lichen	S?	G5		
<i>Parmelina horrescens</i>	A Lichen	S1	G5		
<i>Parmotrema hypoleucinum</i>	A Lichen	S1	G4G5		
<i>Parmotrema madagascariaceum</i>	A Lichen	S?	G3G5		
<i>Parmotrema tinctorum</i>	A Lichen	S2	G5?		
<i>Pseudocyphellaria aurata</i>	A Lichen	S1	G3G5		
<i>Psora icterica</i>	A Lichen	S1	G5?		
<i>Pycnothelia papillaria</i>	A Lichen	S1	G3G5		
<i>Ramalina intermedia</i>	A Lichen	S1	G4G5		
<i>Rimelia subisidiosa</i>	A Lichen	S1	G4G5		
<i>Tuckermannopsis ciliaris</i>	A Lichen	S?	G3G5		
<i>Usnea angulata</i>	A Lichen	S1	G3G5		
<i>Xanthoparmelia australasica</i>	A Lichen	S1	G5		
Total Lichen Records: 25					

LIVERWORTS AND HORNWORTS

<i>Aneura maxima</i>	A Liverwort	SU	G4?
<i>Anthoceros agrestis</i>	A Hornwort	S?	G4G5
<i>Bazzania trilobata</i>	A Liverwort	S1	G5
<i>Calypogeia muelleriana</i> ssp. <i>muelleriana</i>	A Liverwort	SU	G5T5
<i>Cephalozia connivens</i>	A Liverwort	SU	G5
<i>Kurzia setacea</i>	A Liverwort	S1	G4G5
<i>Kurzia sylvatica</i>	A Liverwort	S1	G5
<i>Lophozia incisa</i>	A Liverwort	SU	G5
<i>Marchantia aquatica</i>	A Liverwort	SU	GNR
<i>Marsupella sphacelata</i>	A Liverwort	S1	G5
<i>Metzgeria conjugata</i>	A Liverwort	S1S2	G5
<i>Metzgeria furcata</i>	A Liverwort	S?	G5
<i>Nardia lescurii</i>	A Liverwort	S?	G3?
<i>Notothylas orbicularis</i>	A Hornwort	S1	G5
<i>Nowellia curvifolia</i>	A Liverwort	S?	G5
<i>Oxymitra incrassata</i>	A Liverwort	S1	GNR

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
LIVERWORTS AND HORNWORTS (Cont.)					
<i>Phaeoceros oreganus</i>	A Hornwort	S1	GNRQ		
<i>Ptilidium pulcherrimum</i>	A Liverwort	S1	G5		
<i>Rectolejeunea maxonii</i>	A Liverwort	S1	G4		
<i>Riccardia multifida</i>	A Liverwort	S1	G5		
<i>Riccardia palmata</i>	A Liverwort	S1	G5		
<i>Riccia austini</i>	A Liverwort	SU	G5		
<i>Riccia beyrichiana</i>	A Liverwort	SU	G5		
<i>Riccia bifurca</i>	A Liverwort	SU	G5		
<i>Riccia cavernosa</i>	A Liverwort	SU	G5		
<i>Riccia crystallina</i>	A Liverwort	SU	G4G5		
<i>Riccia fluitans</i>	Crystalwort	SU	G5		
<i>Riccia frostii</i>	A Liverwort	SU	G5		
<i>Riccia hirta</i>	A Liverwort	SU	G5		
<i>Riccia macallisteri</i>	A Liverwort	SU	G2G4		
<i>Riccia nigrella</i>	A Liverwort	SU	G4G5		
<i>Riccia ozarkiana</i>	A Liverwort	SH	G1G2		
<i>Riccia sorocarpa</i>	A Liverwort	SU	G5		
<i>Riccia sullivantii</i>	A Liverwort	S?	G4Q		

Total Liverwort and Hornwort Records: 34

MOSSES

<i>Acaulon muticum</i> var. <i>muticum</i>	A Moss	SU	G4G5TNR
<i>Amblystegium polygamum</i>	A Moss	S1	G5
<i>Amblystegium protensum</i>	A Moss	SU	G5T3T5
<i>Amblystegium radicale</i>	A Moss	SU	G3G5
<i>Anacamptodon splachnoides</i>	Knothole Moss	SU	G3G5
<i>Anomobryum filiforme</i>	A Moss	S1	G4G5
<i>Archidium alternifolium</i>	A Moss	S1	G4G5
<i>Astomum phascoides</i>	A Pygmy Moss	SU	G3G4
<i>Atrichum crispulum</i>	A Moss	SU	GNR
<i>Atrichum cylindricum</i>	A Moss	SU	G5
<i>Brachelyma subulatum</i>	A Moss	S1	G4G5
<i>Brachythecium campestre</i>	A Moss	SU	G4G5Q
<i>Brachythecium salebrosum</i> var. <i>salebrosum</i>	A Moss	SU	G5TNR
<i>Bruchia texana</i>	A Moss	SU	G3G5
<i>Bryhnia novae-angliae</i>	A Moss	SU	G5
<i>Bryoxiphium norvegicum</i>	Sword Moss	S1	G5?
<i>Bryum algovicum</i> var. <i>algovicum</i>	A Moss	S1	G4G5TNR
<i>Bryum cyclophyllum</i>	A Moss	S?	G4G5
<i>Bryum flaccidum</i>	A Moss	SU	G5
<i>Bryum klinggraeffii</i>	A Moss	S?	G4G5
<i>Bryum miniatum</i>	A Moss	S1	G3G4
<i>Bryum pallescens</i>	A Moss	SU	G5
<i>Bryum ruderale</i>	A Moss	SU	G3G5
<i>Bryum subapiculatum</i>	A Moss	SX	G5?
<i>Bryum uliginosum</i>	A Moss	S1	G3G5

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
MOSSES (Cont.)					
<i>Calliergonella cuspidata</i>	A Moss	S?	G5		
<i>Campyloplodiella stenocarpa</i>	A Moss	S1	G5		
<i>Campylopus tallulensis</i>	A Moss	S1	G4		
<i>Dichelyma capillaceum</i>	A Moss	S1	G5		
<i>Dicranella rufescens</i>	A Moss	S1S2	G5?		
<i>Dicranum polysetum</i>	A Moss	S1	G5		
<i>Didymodon revolutus</i>	A Moss	S1	G4		
<i>Didymodon rigidulus</i> var. <i>rigidulus</i>	A Moss	S1	G5T4?		
<i>Ditrichum rhynchostegium</i>	A Moss	SU	G3G5		
<i>Drepanocladus aduncus</i> var. <i>kneiffii</i>	A Moss	SU	G5T4T5		
<i>Encalypta procera</i>	Extinguisher Moss	S1	G4G5		
<i>Entodon brevisetus</i>	A Moss	SU	G4?		
<i>Ephemerum crassinervium</i> var. <i>texanum</i>	A Moss	SU	G4T3?		
<i>Ephemerum serratum</i>	A Moss	SU	G4		
<i>Fissidens exilis</i>	Small Pocket Moss	SU	G3G4		
<i>Forsstroemia producta</i>	A Moss	S1	G5?		
<i>Funaria americana</i>	A Moss	SU	G3?		
<i>Funaria calvescens</i>	A Moss	SU	G5		
<i>Grimmia olneyi</i>	A Moss	S?	G3G5		
<i>Grimmia ovalis</i>	A Moss	SU	G5?		
<i>Grimmia plagiopodia</i>	A Moss	SU	G4G5		
<i>Gymnostomum calcareum</i>	A Moss	SU	G5?		
<i>Herzogiella striatella</i>	A Moss	SU	G4G5		
<i>Homaliadelphus sharpii</i>	Sharp's Homaliadelphus	S1	G3?		
<i>Hypnum cupressiforme</i> var. <i>filiforme</i>	A Moss	S1	G5TNR		
<i>Hypnum lindbergii</i> var. <i>americanum</i>	A Moss	SU	G5TNR		
<i>Hypnum pallescens</i>	A Moss	S1	G5		
<i>Hypnum pratense</i>	A Moss	SU	G5		
<i>Isopterygiopsis muelleriana</i>	A Moss	S1	G5		
<i>Jaffueliobryum raui</i>	A Moss	SU	G4?		
<i>Jaffueliobryum wrightii</i>	A Moss	SU	G4G5		
<i>Leskea polycarpa</i>	A Moss	SU	G4G5		
<i>Leucodon brachypus</i>	A Moss	SU	G5		
<i>Micromitrium megalosporum</i>	A Moss	S1S2	G4		
<i>Micromitrium synoicum</i>	A Moss	SU	G4		
<i>Micromitrium tenerum</i>	A Moss	SU	G4G5		
<i>Mnium hornum</i>	A Moss	SU	G5		
<i>Mnium thomsonii</i>	A Moss	S?	G5		
<i>Myurella sibirica</i>	A Moss	S?	G4?		
<i>Neckera besseri</i>	A Moss	S1	G4G5		
<i>Orthotrichum anomalum</i>	A Moss	S?	G4G5		
<i>Orthotrichum diaphanum</i>	A Moss	S?	G5		
<i>Orthotrichum elegans</i>	A Moss	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
MOSSES (Cont.)					
<i>Orthotrichum lescurii</i>	A Moss	SU	GNR		
<i>Physcomitrium collenchymatum</i>	A Moss	S1	G2G4		
<i>Physcomitrium hookeri</i>	A Moss	SU	G2G4		
<i>Plagiomnium medium</i>	A Moss	SU	G5		
<i>Plagiothecium denticulatum</i>	A Moss	S1	G5		
<i>Platylomella lescurii</i>	A Moss	S?	G5		
<i>Pleuridium acuminatum</i>	A Moss	SU	G3G5		
<i>Pleuridium sullivantii</i>	A Moss	SU	G3G5		
<i>Pohlia annotina</i>	A Moss	SU	G4G5		
<i>Polytrichum formosum</i> var. <i>densifolium</i>	A Moss	SU	G5TNR		
<i>Pseudotaxiphyllum distichaceum</i>	A Moss	SU	G4G5		
<i>Ptychomitrium serratum</i>	A Moss	SU	G4?		
<i>Ptychomitrium sinense</i>	A Moss	S1	G4G5		
<i>Pylaisia intricata</i>	A Moss	SU	G4		
<i>Pylaisiadelpha tenuirostris</i>	A Moss	SU	G5?		
<i>Pyramidula tetragona</i>	A Moss	SU	G3G5		
<i>Racomitrium aciculare</i>	A Moss	SU	G5		
<i>Rhabdoweisia crispata</i>	A Moss	S1	G5		
<i>Rhytidium rugosum</i>	Golden Glade-moss	S1	G5		
<i>Schistidium liliputanum</i>	A Moss	SU	GNR		
<i>Seligeria calcarea</i>	A Moss	S?	G4?		
<i>Seligeria donniana</i>	A Moss	S1	G4G5		
<i>Seligeria pusilla</i>	A Moss	S1	G3G5		
<i>Sematophyllum marylandicum</i>	A Moss	S1	G5		
<i>Sphagnum affine</i>	Sphagnum	S1	G5		
<i>Sphagnum angustifolium</i>	Narrowleaf Peatmoss	S1	G5		
<i>Sphagnum bartlettianum</i>	Sphagnum	SU	G4G5		
<i>Sphagnum capillifolium</i>	Northern Peatmoss	S1	G5		
<i>Sphagnum cuspidatum</i>	Sphagnum	SU	G5		
<i>Sphagnum fallax</i>	Sphagnum	SU	G5		
<i>Sphagnum fimbriatum</i> var. <i>fimbriatum</i>	Sphagnum	S1	G5TNR		
<i>Sphagnum henryense</i>	Sphagnum	S1	G4?		
<i>Sphagnum inundatum</i>	Sphagnum	S1	G4		
<i>Sphagnum magellanicum</i>	Magellan's Peatmoss	SU	G5		
<i>Sphagnum platyphyllum</i>	Sphagnum	SU	G5		
<i>Sphagnum recurvum</i>	Sphagnum	S1	G5		
<i>Sphagnum russowii</i>	Sphagnum	SU	G5		
<i>Sphagnum subtile</i>	Sphagnum	SU	G5?Q		
<i>Sphagnum trinitense</i>	Sphagnum	S1	G4		
<i>Syntrichia papillosa</i>	A Moss	S?	G5		
<i>Syrrhopodon texanus</i>	A Moss	S1	G5		
<i>Thamnobryum alleghaniense</i>	A Moss	S1	G5?		
<i>Tortella fragilis</i>	Fragmented Screw-moss	SU	G5		
<i>Tortella tortuosa</i>	Twisted Moss	SU	G5		
<i>Trematodon longicollis</i>	A Moss	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
------------------------	--------------------	--------------	--------------	---------------------	-----------------------

MOSSES (Cont.)

Trichostomum tenuirostre var. gemmiparum	A Moss	SU	G4TNR
Zygodon apiculatus	A Moss	S1	GU

Total Moss Records: 115

FERNS AND FERN ALLIES

Asplenium montanum	Mountain Spleenwort	SH	G5
Azolla caroliniana	Eastern Mosquito Fern	S1S3	G5
Botrychium biternatum	Few-lobed Grape Fern	S1	G5
Cheilanthes alabamensis	Alabama Lip-fern	S1	G4G5
Cheilanthes tomentosa	Woolly Lip-fern	S1	G5
Cystopteris tenuis	A Bladderfern	S1	G4G5
Dennstaedtia punctilobula	Hay-scented Fern	S2	G5
Dryopteris carthusiana	Spinulose Shield Fern	S2	G5
Dryopteris celsa	Log Fern	S1	G4
Dryopteris cristata	Crested Fern	S1	G5
Dryopteris goldiana	Goldie's Fern	S2	G4
Dryopteris intermedia	Evergreen Woodfern	S1	G5
Huperzia porophila	Fir Clubmoss	S2	G4
Isoetes engelmannii var. engelmannii	Engelmann's Quillwort	S1?	G4TNR
Lycopodium dendroideum	Round-branched Ground Pine	S1	G5
Lycopodium digitatum	A Clubmoss	S2	G5
Lycopodium tristachyum	Ground Cedar	S1	G5
Matteuccia struthiopteris var. pensylvanica	Ostrich Fern	S2	G5T5
Ophioglossum crotalophoroides	Bulbous Adder's-tongue	SH	G5
Ophioglossum petiolatum	Stalked Adder's-tongue	SX	G5
Pellaea glabella var. missouriensis	Missouri Cliffbrake	S1S2	G5T1T2
Pilularia americana	American Pillwort	SU	G5
Woodsia obtusa ssp. occidentalis	Blunt-lobe Woodsia	S1	G5T3T4
Woodwardia areolata	Netted Chain Fern	S2	G5

Total Ferns and Fern Allies Records: 24

FLOWERING PLANTS

Acalypha deamii	Large Seeded Mercury	S1	G4?
Aconitum uncinatum	Southern Monkshood	S1	G4
Agalinis auriculata	Auriculate False Foxglove	S3	G3
Agalinis heterophylla	Prairie False Foxglove	S1	G4G5
Agalinis purpurea	Purple False Foxglove	S2	G5
Agalinis viridis	Green False Foxglove	S1	G4?
Agastache scrophulariifolia	Purple Giant-hyssop	S1	G4
Agrimonia gryposepala	Tall Agrimony	SU	G5
Allium burdickii	Wild Leek	S2	G4G5
Alopecurus aequalis	Floating Foxtail Grass	S2	G5
Amsonia ciliata var. filifolia	Ciliate Blue Star	S2S3	G5?T4?

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Anemone cylindrica</i>	Thimbleweed	S2	G5		
<i>Anemone quinquefolia</i>	Wood Anemone	S1	G5		
<i>Aralia nudicaulis</i>	Wild Sarsaparilla	S2	G5		
<i>Aristida adscensionis</i>	Sixweeks Three-awn	SH	G5		
<i>Aristida desmantha</i>	Curly Three-awn	S1	G5		
<i>Aristida lanosa</i>	Woollyleaf Three-awn	S1	G5		
<i>Aristida ramosissima</i>	Slender Three-awn	SH	G5		
<i>Aronia melanocarpa</i>	Black Chokeberry	S1	G5		
<i>Artemisia dracunculus</i>	A Wormwood	SH	G5		
<i>Asclepias meadii</i>	Mead's Milkweed	S2	G2	E	T
<i>Asclepias speciosa</i>	Showy Milkweed	SA	G5		
<i>Astragalus lotiflorus</i>	Low Milk Vetch	S2	G5		
<i>Astranthium ciliatum</i>	Western Daisy	S2	G5T5		
<i>Bartonia paniculata</i> ssp. <i>paniculata</i>	Screwstem	S1	G5T5		
<i>Bartonia virginica</i>	Yellow Bartonia	S1	G5		
<i>Berberis canadensis</i>	American Barberry	S2	G3		
<i>Bergia texana</i>	Bergia	S2	G5		
<i>Berula erecta</i> var. <i>incisum</i>	Cut-leaved Water-parsnip	S1	G4G5T4T5		
<i>Bidens laevis</i>	A Beggar's Tick	S1	G5		
<i>Bolboschoenus maritimus</i> ssp. <i>paludosus</i>	Bayonet Grass	S1	G5T5		
<i>Boltonia decurrens</i>	Decurrent False Aster	S1	G2	E	T
<i>Bouteloua gracilis</i>	Blue Grama	S1	G5		
<i>Bouteloua hirsuta</i> var. <i>hirsuta</i>	Hairy Grama	S2	G5T5		
<i>Bromus latiglumis</i>	A Brome	S3	G5		
<i>Buchloe dactyloides</i>	Buffalo Grass	SH	G4G5		
<i>Calamagrostis porteri</i> ssp. <i>insperata</i>	Oferhollow Reed Grass	S3	G4T3		
<i>Calamagrostis stricta</i> ssp. <i>inxpansa</i>	Northern Reedgrass	S2S3	G5T5		
<i>Calamovilfa longifolia</i> var. <i>longifolia</i>	Long-leaved Reed Grass	SH	G5T5		
<i>Callicarpa americana</i>	French Mulberry	S1	G5		
<i>Callirhoe bushii</i>	Bush's Poppy Mallow	S2	G3		
<i>Callirhoe triangulata</i>	Clustered Poppy Mallow	SH	G3		
<i>Calopogon oklahomensis</i>	Grass Pink Orchid	SU	G3		
<i>Calopogon tuberosus</i>	Grass Pink Orchid	S2	G5		
<i>Caltha palustris</i> var. <i>palustris</i>	Marsh Marigold	S1	G5T5		
<i>Camassia angusta</i>	A Wild Hyacinth	S3	G5?Q		
<i>Campanula aparinoides</i> var. <i>aparinoides</i>	Marsh Bellflower	S1	G5TNR		
<i>Campanula rotundifolia</i>	Harebell	S1	G5		
<i>Carex abscondita</i>	A Sedge	S1	G4G5		
<i>Carex alata</i>	Broadwing Sedge	S2S3	G5		
<i>Carex albicans</i> var. <i>australis</i>	Bellow Beaked Sedge	S1	G5T5		
<i>Carex alboluteescens</i>	Greenish-white Sedge	S1S2	G5		
<i>Carex aquatilis</i> var. <i>substricta</i>	A Sedge	S1	G5TNR		
<i>Carex arkansana</i>	A Sedge	S3	G4		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Carex atherodes</i>	Awned Sedge	S1	G5		
<i>Carex atlantica</i> ssp. <i>atlantica</i>	A Sedge	S1	G5T4		
<i>Carex bromoides</i> ssp. <i>bromoides</i>	A Sedge	S2	G5T5		
<i>Carex buxbaumii</i>	Brown Bog Sedge	S2	G5		
<i>Carex cherokeensis</i>	Cherokee Sedge	S2	G4G5		
<i>Carex communis</i> var. <i>communis</i>	Fibrous-root Sedge	S2	G5T5		
<i>Carex comosa</i>	Bristly Sedge	S2	G5		
<i>Carex conoidea</i>	Field Sedge	S1	G5		
<i>Carex cumberlandensis</i>	A Sedge	S1	GNR		
<i>Carex debilis</i> var. <i>debilis</i>	White-edge Sedge	S1	G5T5		
<i>Carex decomposita</i>	Epiphytic Sedge	S3	G3		
<i>Carex fissa</i> var. <i>fissa</i>	A Sedge	S1	G4?T3T4		
<i>Carex flaccosperma</i>	A Sedge	S2	G5		
<i>Carex gigantea</i>	Giant Sedge	S1S2	G4		
<i>Carex gracillima</i>	Graceful Sedge	S1	G5		
<i>Carex jorpii</i>	Cypress-swamp Sedge	SH	G4G5		
<i>Carex lacustris</i>	Lake-bank Sedge	S2	G5		
<i>Carex laxiflora</i> var. <i>laxiflora</i>	A Carex	S1	G5T5		
<i>Carex longii</i>	Greenish-white Sedge	S1	G5		
<i>Carex microdonta</i>	A Sedge	S1	G4		
<i>Carex molestiformis</i>	A Sedge	S2	G4		
<i>Carex nigromarginata</i> var. <i>floridana</i>	A Sedge	S1	G5T5?		
<i>Carex oxylepis</i>	Sharp-scale Sedge	S2	G5?		
<i>Carex prasina</i>	Drooping Sedge	S1	G4		
<i>Carex reniformis</i>	Reniform Sedge	S1	G4?		
<i>Carex reznicekii</i>	A Sedge	S2?	G5		
<i>Carex sartwellii</i>	Sartwell's Sedge	S1	G4G5		
<i>Carex scabrata</i>	Rough Sedge	SH	G5		
<i>Carex socialis</i>	A Sedge	S2	G4		
<i>Carex sprengelii</i>	Longbeak Sedge	S1	G5?		
<i>Carex sterilis</i>	A Sedge	S2	G4		
<i>Carex straminea</i>	Straw Sedge	S1	G5		
<i>Carex stricta</i>	Tussock Sedge	S3	G5		
<i>Carex sychnocephala</i>	A Sedge	S1	G4		
<i>Carex tenera</i> var. <i>echinodes</i>	A Sedge	SH	G5TNRQ		
<i>Carex tetanica</i>	Rigid Sedge	S3	G4G5		
<i>Carex timida</i>	Timid Sedge	S1S2	G2G3		
<i>Carex tonsa</i> var. <i>rugosperma</i>	Shaved Sedge	S1	G5T5		
<i>Carex tonsa</i> var. <i>tonsa</i>	Shaved Sedge	SH	G5T4T5		
<i>Carex triangularis</i>	Triangular Sedge	S2	G5		
<i>Carex trichocarpa</i>	Hairy-fruited Sedge	S1	G4		
<i>Carex vesicaria</i> var. <i>monile</i>	A Sedge	S2?	G5T4		
<i>Carex willdenowii</i>	Willdenow's Sedge	S1	G5		
<i>Carya pallida</i>	Sand Hickory	S2S3	G5		
<i>Castanea pumila</i> var. <i>ozarkensis</i>	Ozark Chinquapin	S2	G5T3		
<i>Castilleja purpurea</i> var. <i>purpurea</i>	Purple Paintbrush	SH	G5T4?		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Castilleja sessiliflora</i>	Downy Painted Cup	S2	G5		
<i>Cayaponia quinqueloba</i>	A Gourd	S1	G4		
<i>Centaurea americana</i>	American basket flower	SH	G5		
<i>Centrosema virginianum</i>	Coastal Butterfly-pea	SH	G5		
<i>Ceratophyllum echinatum</i>	Coontail	S1?	G4?		
<i>Chaetopappa asteroides</i> var. <i>asteroides</i>	Common Leastdaisy	S2S3	G5T3T5		
<i>Chasmanthium laxum</i> ssp. <i>laxum</i>	Slender Spike Grass	S1	G5T5		
<i>Chasmanthium laxum</i> ssp. <i>sessiliflorum</i>	A Spike Grass	SH	G5T5		
<i>Chelone obliqua</i>	Rose Turtlehead	S2	G4		
<i>Chenopodium strictum</i> var. <i>glaucocephalum</i>	A Goosefoot	SH	G5TU		
<i>Cirsium undulatum</i>	Wavy-leaved Thistle	SH	G5		
<i>Cissus trifoliata</i>	Marine Vine	S2	G5		
<i>Claytonia ozarkensis</i>	Ozark Spring Beauty	SU	G1G3Q		
<i>Clematis fremontii</i>	Fremont's Leather Flower	S3	G5		
<i>Clematis viorna</i>	A Leatherflower	S1	G5		
<i>Cleome serrulata</i>	Rock Mountain Bee Plant	SH	G5		
<i>Coeloglossum viride</i> var. <i>virescens</i>	Long-bracted Orchid	S1	G5T5		
<i>Coelorachis cylindrica</i>	Joint Grass	S1	G4G5		
<i>Conyza canadensis</i> var. <i>pusilla</i>	Fleabane	S1S2	G5T5		
<i>Corispermum pallasii</i>	A Bugseed	SH	G4?		
<i>Corispermum villosum</i>	Oriental Tick-seed	SU	G4?		
<i>Corydalis micrantha</i> ssp. <i>australis</i>	A Corydalis	S2	G5T5?		
<i>Crataegus marshallii</i>	Parsley Haw	S1	G5		
<i>Crataegus spathulata</i>	A Hawthorn	S1	G5		
<i>Croton michauxii</i>	Narrowleaf Rushfoil	S1	G5		
<i>Cyclachaena xanthifolia</i>	A Marsh Elder	S1	G5		
<i>Cynosciadium digitatum</i>	Finger Dog-shade	S2	G4G5		
<i>Cyperus compressus</i>	Coco Grass	SU	G5		
<i>Cyperus croceus</i>	Baldwin's Cyperus	S1	G5		
<i>Cyperus diandrus</i>	Umbrella Flatsedge	S1	G5		
<i>Cyperus flavicomus</i>	An Umbrella Sedge	S1	G5		
<i>Cyperus grayoides</i>	An Umbrella Sedge	S3	G3		
<i>Cyperus hystricinus</i>	Flatsedge	S1	G4		
<i>Cyperus plukenetii</i>	Plukenet's Cyperus	S1	G5		
<i>Cyperus polystachyos</i> var. <i>texensis</i>	Many-spiked Cyperus	S2S3	G5T5		
<i>Cyperus retroflexus</i>	Umbrella Sedge	S1	G5		
<i>Cyperus retrofractus</i>	Teasel-like Cyperus	S1S2	G5		
<i>Cyperus retrorsus</i>	An umbrella sedge	SH	G5		
<i>Cyperus schweinitzii</i>	Schweinitz's Flatsedge	S3	G5		
<i>Cyperus setigerus</i>	Bristled Cyperus	S1	G3G5		
<i>Cypripedium candidum</i>	Small White Lady-slipper	S1	G4		
<i>Cypripedium reginae</i>	Showy Lady-slipper	S2S3	G4		
<i>Dalea enneandra</i>	Nine-anther Dalea	S2	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Dalea gattingeri</i>	Gattinger Prairie-clover	S1	G3G4		
<i>Dalea multiflora</i>	Round-headed Prairie Clover	SH	G5		
<i>Decodon verticillatus</i>	Swamp Loosestrife	S1	G5		
<i>Delphinium exaltatum</i>	Tall Larkspur	S2	G3		
<i>Descurainia pinnata</i> ssp. <i>pinnata</i>	Tansy Mustard	S2S3	G5T5		
<i>Desmodium ochroleucum</i>	Creamflower Tick Trefoil	SH	G1G2		
<i>Desmodium strictum</i>	Pineland Tick Trefoil	S1	G4		
<i>Desmodium viridiflorum</i>	Velvety Tick Trefoil	S1	G5?		
<i>Diarrhena americana</i>	American Beakgrain	S1	G4G5		
<i>Dichondra carolinensis</i>	Pony-foot Grass	S1	G5		
<i>Dirca decipiens</i>	Leatherwood	SU	G1G2		
<i>Distichlis spicata</i> var. <i>spicata</i>	Seashore Salt Grass	S1	G5TNR		
<i>Dodecatheon amethystinum</i>	Amethyst Shooting Star	S2	G4		
<i>Dodecatheon frenchii</i>	French's Shooting Star	S1	G3		
<i>Doellingeria umbellata</i> var. <i>pubens</i>	Flat-topped White Aster	S1	G5T5		
<i>Echinacea angustifolia</i>	Narrow-leaved Coneflower	SH	G4		
<i>Echinochloa walteri</i>	A Barnyard Grass	S1	G5		
<i>Echinodorus tenellus</i> var. <i>parvulus</i>	Dwarf Burhead	S1	G3T3		
<i>Elatine triandra</i>	Waterwort	SH	G5		
<i>Eleocharis atropurpurea</i>	A Spike Rush	S1	G4G5		
<i>Eleocharis equisetoides</i>	Horsetail Spike Rush	SH	G4		
<i>Eleocharis lanceolata</i>	Lance-like Spike Rush	S1	G4G5		
<i>Elodea canadensis</i>	Broad Waterweed	SU	G5		
<i>Elymus diversiglumis</i>	Wild Rye	SH	G3G4Q		
<i>Epifagus virginiana</i>	Beech Drops	S2	G5		
<i>Epilobium leptophyllum</i>	Willow Herb	S1	G5		
<i>Eragrostis glomerata</i>	A Love Grass	S1	G3G5		
<i>Eragrostis reptans</i>	Creeping Love Grass	SH	G5		
<i>Erianthus giganteus</i>	Plume Grass	S1	G5		
<i>Erianthus strictus</i>	Narrow Plumegrass	SH	G5		
<i>Eriogonum longifolium</i> var. <i>longifolium</i>	Umbrella Plant	S2	G4T4		
<i>Erysimum capitatum</i> var. <i>capitatum</i>	Western Wallflower	S3?	G5T5		
<i>Euonymus americanus</i>	Strawberry Bush	S2	G5		
<i>Eupatorium maculatum</i> var. <i>brunneri</i>	Spotted Joe-pye Weed	S1	G5T4T5Q		
<i>Eupatorium rotundifolium</i> var. <i>scabridum</i>	A Thoroughwort	S1?	G5T3T5		
<i>Eupatorium semiserratum</i>	A Thoroughwort	S1S2	G5		
<i>Euphorbia geyeri</i> var. <i>geyeri</i>	Geyer's Spurge	S1	G5T5		
<i>Eurybia furcata</i>	Forked Aster	S2	G3		
<i>Eurybia macrophylla</i>	Big-leaved Aster	S2	G5		
<i>Festuca sororia</i>	A Fescue	SH	G4		
<i>Filipendula rubra</i>	Queen of the Prairie	S2	G4G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Fimbristylis littoralis</i> var. <i>littoralis</i>	A Fimbristylis	S1?	G3G5TNR		
<i>Floerkea proserpinacoides</i>	False Mermaid	SU	G5		
<i>Fragaria vesca</i> var. <i>americana</i>	Woodland Strawberry	S1	G5T5		
<i>Fuirena simplex</i> var. <i>aristulata</i>	An Umbrella Grass	S2?	G5T4		
<i>Gaillardia aestivalis</i> var. <i>flavovirens</i>	A Blanket Flower	SH	G5T3T5		
<i>Galium boreale</i> ssp. <i>septentrionale</i>	Northern Bedstraw	S2	G5TNR		
<i>Gaura coccinea</i>	Scarlet Gaura	S1	G5		
<i>Gaylussacia baccata</i>	Black Huckleberry	S1	G5		
<i>Gentiana andrewsii</i> var. <i>andrewsii</i>	Closed Gentian	S1	G5?T5?		
<i>Geocarpon minimum</i>	Geocarpon	S2	G2	E	T
<i>Geum virginianum</i>	Pale Avens	S1	G5		
<i>Gillenia trifoliata</i>	Indian Physic	SH	G4G5		
<i>Glyceria acutiflora</i>	Sharp-scaled Manna Grass	S3	G5		
<i>Glyceria septentrionalis</i> var. <i>arkansana</i>	Eastern Manna Grass	SU	G5		
<i>Glycyrrhiza lepidota</i> var. <i>lepidota</i>	Wild Licorice	S1	G5TNRQ		
<i>Gratiola viscidula</i> ssp. <i>viscidula</i>	Hedge Hyssop	S1	G4G5TNR		
<i>Grindelia ciliata</i>	A Goldenweed	S1	G4G5		
<i>Hedysotis boscii</i>	A Bluet	S1	G5		
<i>Hedysotis uniflora</i>	Clustered Bluets	S1	G5		
<i>Helenium virginicum</i>	Virginia Sneezeweed	S3	G3	E	T
<i>Helianthemum canadense</i>	A Rockrose	SU	G5		
<i>Helianthus angustifolius</i>	Swamp Sunflower	S2	G5		
<i>Heliotropium curassavicum</i> var. <i>curassavicum</i>	Seaside Heliotrope	S1	G5T5		
<i>Heterotheca canescens</i>	Hoary Golden Aster	SH	G5?		
<i>Heuchera parviflora</i> var. <i>parviflora</i>	Little Leaved Alum Root	S1	G4T4		
<i>Hottonia inflata</i>	Featherfoil	S2	G4		
<i>Hydrocotyle ranunculoides</i>	Floating Pennywort	S1S2	G5		
<i>Hydrocotyle verticillata</i>	Water Pennywort	S1	G5		
<i>Hydrolea ovata</i>	Ovate Fiddleleaf	S2	G5		
<i>Hypericum adpressum</i>	Creeping St. John's-wort	S1	G3		
<i>Hypericum ascyron</i> ssp. <i>pyramidalatum</i>	Great St. John's-wort	S1	G4		
<i>Hypericum lobocarpum</i>	A St. John's Wort	S1	G4Q		
<i>Hypericum majus</i>	Greater St. John's-wort	SH	G5		
<i>Ilex verticillata</i> var. <i>padifolia</i>	Winterberry	S3	G5TNR		
<i>Isolepis molesta</i>	Gulf Coast Bulrush	SH	G4?		
<i>Isotria medeoloides</i>	Small Whorled Pogonia	SH	G2	E	T
<i>Isotria verticillata</i>	Large Whorled Pogonia	S1S2	G5		
<i>Juncus alpinoarticulatus</i>	Richardson Rush	SH	G5		
<i>Juncus balticus</i> var. <i>littoralis</i>	Baltic Rush	S1	G5T5		
<i>Juncus brachyphyllus</i>	Small-headed Rush	SH	G5		
<i>Juncus bufonius</i> var. <i>bufonius</i>	Toad Rush	S1	G5T5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Juncus canadensis</i> var. <i>canadensis</i>	Canada Rush	S1	G5T5		
<i>Juncus debilis</i>	Weak Rush	S1	G5		
<i>Juncus nodosus</i>	Knotted Rush	SH	G5		
<i>Juncus validus</i>	A Rush	S1	G5		
<i>Justicia ovata</i> var. <i>lanceolata</i>	A Water Willow	S2	G5T4T5		
<i>Lactuca hirsuta</i>	Hairy Lettuce	SU	G5?		
<i>Lactuca ludoviciana</i>	Western Lettuce	SH	G4G5		
<i>Lactuca tatarica</i> ssp. <i>pulchella</i>	Blue Lettuce	S1	G5T5		
<i>Lathyrus pusillus</i>	A Wild Pea	SH	G5?		
<i>Lechea racemulosa</i>	Illinois Pinweed	SH	G5		
<i>Leitneria floridana</i>	Corkwood	S2	G3		
<i>Lemna obscura</i>	A Duckweed	SU	G5		
<i>Lemna trisulca</i>	Star Duckweed	S2	G5		
<i>Lemna turionifera</i>	A Duckweed	SH	G5		
<i>Liatris punctata</i> var. <i>punctata</i>	A Blazing Star	S3	G5T5		
<i>Liatris scariosa</i> var. <i>nieuwlandii</i>	A Blazing Star	S2	G5?T3T5		
<i>Liatris spicata</i>	Button Snakeroot	SX	G5		
<i>Lilium philadelphicum</i> var. <i>andinum</i>	Wood Lily	S1	G5T4T5		
<i>Lilium superbum</i>	Turk's Cap Lily	S1	G5		
<i>Limnobium spongia</i> ssp. <i>spongia</i>	American Frogbit	S2	G4		
<i>Limnosciadium pinnatum</i>	Pinnate Dogshade	S1	G5?		
<i>Limosella aquatica</i>	Mudwort	SH	G5		
<i>Lindera melissifolia</i>	Pondberry	S1	G2G3	E	E
<i>Liparis loeselii</i>	Loesel's Twayblade	S2	G5		
<i>Lipocarpha aristulata</i>	Lipocarpha	SH	G5?		
<i>Lipocarpha drummondii</i>	A Lipocarpha	SH	G4G5		
<i>Listera australis</i>	Southern Twayblade	S1	G4		
<i>Lithospermum latifolium</i>	American Gromwell	S2	G4		
<i>Lobelia puberula</i>	Downy Lobelia	SH	G5		
<i>Lomatium foeniculaceum</i> ssp. <i>foeniculaceum</i>	Hairy Parsley	S1S3	G5T5		
<i>Ludwigia leptocarpa</i>	Primrose Willow	S2	G5		
<i>Ludwigia microcarpa</i>	A False Loosestrife	S2	G5		
<i>Ludwigia repens</i>	A False Loosestrife	SU	G5		
<i>Lycopus asper</i>	Bugle Weed	SH	G5		
<i>Lycopus uniflorus</i>	Northern Bugleweed	S2?	G5		
<i>Lygodesmia juncea</i>	Skeleton Plant	S3	G5		
<i>Lyonia mariana</i>	Stagger Bush	SH	G5		
<i>Lysimachia terrestris</i>	Swamp Candle	S1	G5		
<i>Lysimachia thyrsiflora</i>	Tufted Loosestrife	S1	G5		
<i>Malus angustifolia</i>	Narrow-leaved Wild Crab	S2	G5?		
<i>Malvastrum hispidum</i>	Yellow False Mallow	S3	G3G5		
<i>Marshallia caespitosa</i> var. <i>caespitosa</i>	Barbara's Buttons	S3	G4T4		
<i>Marshallia caespitosa</i> var. <i>signata</i>	Barbara's Buttons	S1	G4T4		
<i>Mecardonia acuminata</i>	Water Hyssop	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Medeola virginiana</i>	Indian Cucumber-root	SH	G5		
<i>Melica mutica</i>	Two-flowered Melic Grass	S1	G5		
<i>Menyanthes trifoliata</i>	Bogbean	S1	G5		
<i>Mimulus glaberrimus</i> var. <i>jamesii</i>	Roundleaf Monkey Flower	SH	G5T5		
<i>Minuartia muscorum</i>	Dixie Stitchwort	S1	GNR		
<i>Mitreola petiolata</i>	Miterwort	S1	G5		
<i>Moehringia lateriflora</i>	Grove Sandwort	S2S3	G5		
<i>Monarda clinopodia</i>	A Horsemint	SH	G5		
<i>Monarda punctata</i> var. <i>arkansana</i>	Arkansas Bee Balm	SA	G5TNR		
<i>Monarda punctata</i> var. <i>occidentalis</i>	Dotted Monarda	SA	G5T4T5		
<i>Monarda punctata</i> var. <i>villicaulis</i>	Horsemint	S3	G5T5?		
<i>Muhlenbergia asperifolia</i>	Scratchgrass	S1	G5		
<i>Najas flexilis</i>	A Naiad	SH	G5		
<i>Najas gracillima</i>	Thread-like Naiad	S2	G5?		
<i>Nemastylis geminiflora</i>	Prairie Iris	S2	G4		
<i>Neivisia alabamensis</i>	Snow Wreath	SH	G2		
<i>Nothocalais cuspidata</i>	Prairie Dandelion	S2	G5		
<i>Nyssa biflora</i>	Swamp Black Gum	SH	G5		
<i>Obularia virginica</i>	Virginia Pennywort	S2	G5		
<i>Oenothera clelandii</i>	Evening Primrose	S2	G3G5		
<i>Oenothera fruticosa</i> ssp. <i>fruticosa</i>	Shrubby Sundrops	S1	G5T5		
<i>Oenothera fruticosa</i> ssp. <i>glaucia</i>	Shrubby Sundrops	SH	G5T5		
<i>Oenothera nutans</i>	Nodding Evening Primrose	S1S2	G4		
<i>Oenothera perennis</i>	Small Sundrops	S1	G5		
<i>Oenothera rhombipetala</i>	An Evening Primrose	SH	G4G5		
<i>Oenothera triloba</i>	Stemless Evening Primrose	S2	G4		
<i>Opuntia macrorhiza</i>	Low Prickly Pear	S2	G5		
<i>Opuntia polyacantha</i> var. <i>polyacantha</i>	Starvation Cactus	SX	G5T5		
<i>Orobanche ludoviciana</i>	A Broomrape	S1	G5		
<i>Orobanche multiflora</i>	A Broomrape	S1	G5		
<i>Oryzopsis racemosa</i>	Black-seeded Mountain Rice	S1	G5		
<i>Oxytropis lambertii</i> var. <i>lambertii</i>	Locoweed	S2	G5TNR		
<i>Packera tomentosa</i>	Hairy Groundsel	SH	G4G5		
<i>Panicum dichotomum</i> var. <i>mattamuskeetense</i>	A Panic Grass	SH	G4T4?		
<i>Panicum dichotomum</i> var. <i>nitidum</i>	A Panic Grass	S1	G5TNR		
<i>Panicum dichotomum</i> var. <i>yadkinense</i>	A Panic Grass	S1	G5T4Q		
<i>Panicum hians</i>	Gaping Panic Grass	S3	G5		
<i>Panicum leibergii</i>	A Panic Grass	SU	G5		
<i>Panicum portoricense</i>	A Panic Grass	S1?	G5T5		
<i>Panicum verrucosum</i>	Warty Panicgrass	S1	G4		
<i>Paronychia virginica</i>	Virginia Whitlow Wort	S1	G4		
<i>Paspalum bifidum</i>	Pitchfork Paspalum	S1	G5		
<i>Paspalum dissectum</i>	Mudbank Paspalum	SH	G4?		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Paspalum setaceum</i> var. <i>setaceum</i>	Slender Paspalum	S1	G5T5		
<i>Pediomelum argophyllum</i>	Silvery Psoralea	S2	G5		
<i>Peltandra virginica</i> ssp. <i>virginica</i>	Arrow Arum	S2	G5T5		
<i>Penstemon cobaea</i> var. <i>cobaea</i>	A Beard-tongue	S1	G4TNR		
<i>Penstemon grandiflorus</i>	Large Beard-tongue	S1	G5?		
<i>Perideridia americana</i>	Eastern Eulophus	SU	G4		
<i>Phacelia covillei</i>	Coville's Phacelia	S1	G3		
<i>Philadelphus pubescens</i> var. <i>verrucosus</i>	Mock Orange	S1	G5?TU		
<i>Phlox amplifolia</i>	Large-leaved Phlox	S3?	G3G5		
<i>Phlox bifida</i> ssp. <i>stellaria</i>	Bifid Phlox	S1	G5?T3		
<i>Phlox carolina</i> ssp. <i>angusta</i>	Carolina Phlox	SH	G5?TNR		
<i>Phlox carolina</i> ssp. <i>carolina</i>	Carolina Phlox	S1	G5?T3T5Q		
<i>Phlox maculata</i> ssp. <i>pyramidalis</i>	Wild Sweet William	S2	G5T4T5		
<i>Phyla nodiflora</i> var. <i>incisa</i>	Fog Fruit	SH	G5TU		
<i>Phyllanthus polygonoides</i>	Knotweed Leaf-flower	S1	G5		
<i>Physaria filiformis</i>	Missouri Bladder-pod	S3	G3	E	T
<i>Physostegia intermedia</i>	A False Dragonhead	S1	G5		
<i>Plantago patagonica</i>	Woolly Plantain	S2	G5		
<i>Platanthera ciliaris</i>	Yellow-fringed Orchid	S1	G5		
<i>Platanthera clavellata</i>	Green Wood Orchid	S2	G5		
<i>Platanthera flava</i> var. <i>flava</i>	Pale Green Orchid	S2	G4T4?Q		
<i>Platanthera flava</i> var. <i>herbiola</i>	Northern Rein Orchid	S2	G4T4Q		
<i>Platanthera leucophaea</i>	Eastern Prairie Fringed Orchid	S1	G3	E	T
<i>Platanthera praeclara</i>	Western Prairie Fringed Orchid	S1	G3	E	T
<i>Platanthera psycodes</i>	Small Purple-fringed Orchid	SX	G5		
<i>Pluchea foetida</i> var. <i>foetida</i>	March Fleabane	SH	G5T5		
<i>Poa interior</i>	Inland Bluegrass	S1	G5		
<i>Pogonia ophioglossoides</i>	Snake-mouth Orchid	S1	G5		
<i>Polygonella americana</i>	Jointweed	S2	G5		
<i>Polygonum amphibium</i> var. <i>stipulaceum</i>	Water Smartweed	S1	G5T5		
<i>Polygonum arifolium</i>	Halberd-leaved Tear Thumb	S1	G5		
<i>Polygonum densiflorum</i>	Dense-flower Smartweed	S1S2	G5		
<i>Polygonum punctatum</i> var. <i>majus</i>	Dotted Smartweed	SU	G4G5		
<i>Polymnia laevigata</i>	Smooth Leaf-cup	SX	G3		
<i>Polypremum procumbens</i>	Juniper-leaf	S2	G5		
<i>Populus grandidentata</i>	Big-toothed Aspen	S1	G5		
<i>Populus tremuloides</i>	Quaking Aspen	S2	G5		
<i>Potamogeton epihydrus</i>	Nuttall Pondweed	SH	G5		
<i>Potamogeton pulcher</i>	Spotted Pondweed	S2S3	G5		
<i>Potamogeton pusillus</i> var. <i>pusillus</i>	Slender Pondweed	S1	G5T5		
<i>Potentilla Nicolletii</i>	Bushy Cinquefoil	SH	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Prenanthes racemosa</i>	Rattlesnake Root	SH	G5		
<i>Ptilimnium capillaceum</i>	Mock Bishop's Weed	SH	G5		
<i>Pycnanthemum muticum</i>	Blunt Mountain Mint	S2	G5		
<i>Pycnanthemum torrei</i>	Torrey Mountain Mint	SH	G2		
<i>Quercus ellipsoidalis</i>	Northern Pin Oak	S1	G5		
<i>Quercus margarettiae</i>	Sand Post Oak	SRF	G5		
<i>Quercus nigra</i>	Water Oak	S2	G5		
<i>Quercus prinoides</i>	Dwarf Chinquapin Oak	S3?	G5		
<i>Quercus texana</i>	Nuttall's Oak	S2	G4G5		
<i>Ranunculus cymbalaria</i>	Seaside Crowfoot	SH	G5		
<i>Rhynchosia difformis</i>	Double-formed Snoutbean	S1	G5?		
<i>Rhynchospora harveyi</i>	Harvey's Beak-rush	S1	G4		
<i>Rhynchospora macrostachya</i> var. <i>macrostachya</i>	Horned Rush	S1	G4T4		
<i>Ribes americanum</i>	Gooseberry	S1	G5		
<i>Rorippa aquatica</i>	Lake Cress	S2	G4?		
<i>Rosa blanda</i>	Smooth Rose	S1	G5		
<i>Rosa virginiana</i>	A Rose	SU	G5		
<i>Rubus missouricus</i>	Prickly Groundberry	SH	GHQ		
<i>Rudbeckia amplexicaulis</i>	Clasping Leaved Coneflower	S?	G5		
<i>Rudbeckia grandiflora</i> var. <i>grandiflora</i>	Rough Coneflower	S1	G5T4?		
<i>Ruppia maritima</i>	Ditch Grass	S1	G5		
<i>Sabatia brachiata</i>	Marsh Pink	S1	G5?		
<i>Sacciolepis striata</i>	American Cupscale	S1	G5		
<i>Sagittaria ambigua</i>	Kansas Arrowhead	S1	G2?		
<i>Sagittaria platyphylla</i>	Ovate-leaved Arrowhead	S1	G5		
<i>Salix discolor</i>	Pussy Willow	S1	G5		
<i>Salix eriocephala</i> var. <i>famelica</i>	Diamond Willow	SU	G5TNR		
<i>Salix petiolaris</i>	Meadow Willow	S1	G5		
<i>Sambucus pubens</i>	Red-berried Elderberry	S1	G4G5Q		
<i>Sanicula smallii</i>	Black Snakeroot	SH	G5		
<i>Sapindus drummondii</i>	Soapberry	S2	G5T5		
<i>Schoenoplectus americanus</i>	Olney's Bulrush	SH	G5		
<i>Schoenoplectus californicus</i>	Giant Bulrush	S1	G5		
<i>Schoenoplectus deltarum</i>	Delta Bulrush	SH	G3G4		
<i>Schoenoplectus etuberculatus</i>	Canby's Bulrush	S1	G3G4		
<i>Schoenoplectus hallii</i>	Hall's Bulrush	S2	G2G3		
<i>Schoenoplectus heterochaetus</i>	Giant Bulrush	SU	G5		
<i>Schoenoplectus purshianus</i>	Weakstalk Bulrush	S1	G4G5		
<i>Schoenoplectus saximontanus</i>	A Bulrush	S1	G5		
<i>Schoenoplectus subterminalis</i>	Swaying Rush	S1	G4G5		
<i>Schoenoplectus torreyi</i>	Torrey's Bulrush	SH	G5?		
<i>Scirpus divaricatus</i>	A Bulrush	SH	G5		
<i>Scirpus pallidus</i>	Pale Bulrush	S2	G5		
<i>Scirpus pedicellatus</i>	A Bulrush	SH	G4		
<i>Scleria reticularis</i> var. <i>pubescens</i>	Muhlenberg's Nut-rush	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Scrophularia lanceolata</i>	Early Figwort	SH	G5		
<i>Scutellaria elliptica</i> var. <i>hirsuta</i>	Hairy Skullcap	SH	G5T5		
<i>Scutellaria galericulata</i>	Marsh Skullcap	S1	G5		
<i>Sida elliptii</i>	Elliott Sida	S1	G4G5		
<i>Sisyrinchium atlanticum</i>	Eastern Blue-eyed Grass	S2	G5		
<i>Smilax illinoensis</i>	Carrion Flower	S2S3	G4?		
<i>Solidago riddellii</i>	Riddell's Goldenrod	S3	G5		
<i>Spermolepis divaricata</i>	Rough-fruit Spermolepis	S1	G5		
<i>Sphenopholis pensylvanica</i>	Swamp Oats	SH	G4		
<i>Spiraea alba</i> var. <i>alba</i>	Meadow-sweet	S1	G5T5		
<i>Spiraea tomentosa</i>	Hardhack	S1	G5		
<i>Sporobolus airoides</i>	Alkali Sacaton	SH	G5		
<i>Stachys aspera</i>	Hedge Nettle	SH	G4?		
<i>Stenosiphon linifolius</i>	Stenosiphon	S2	G5		
<i>Stylosma pickeringii</i> var. <i>pattersonii</i>	A Stylosma	S1	G4T4		
<i>Sullivantia sullivantii</i>	Sullivantia	S2	G4		
<i>Symporicarpos occidentalis</i>	Wolfberry	S1	G5		
<i>Sympyotrichum ciliatum</i>	Rayless Alkali Aster	SH	G5		
<i>Sympyotrichum dumosum</i> var. <i>strictior</i>	Tradescant Aster	S2	G5T4		
<i>Sympyotrichum racemosum</i> var. <i>subdumosum</i>	Small White Aster	S2	G4G5T3T5Q		
<i>Sympyotrichum subulatum</i> var. <i>ligulatum</i>	Saltmarsh Aster	S2	G5		
<i>Thalia dealbata</i>	Water Canna	S2	G4		
<i>Thelesperma filifolium</i>	Thelesperma	S2	G4G5		
<i>Tipularia discolor</i>	Cranefly Orchid	S2	G4G5		
<i>Torreyochloa pallida</i> var. <i>pallida</i>	Pale Manna Grass	S1	G5T5?		
<i>Tradescantia ozarkana</i>	Ozark Spiderwort	S2	G3		
<i>Tragia cordata</i>	Heart-leaved Noseburn	S2	G4		
<i>Tragia ramosa</i>	A Noseburn	S2	G5		
<i>Trautvetteria caroliniensis</i>	False Bugbane	S2	G5		
<i>Trepocarpus aethusae</i>	Trepocarpus	S1	G4G5		
<i>Triadenium tubulosum</i>	Marsh St. John's Wort	S1	G4?		
<i>Trichostema setaceum</i>	Blue Curls	S1	G5		
<i>Tridens flavus</i> var. <i>chapmanii</i>	A Grass	S2	G5T3		
<i>Tridens muticus</i> var. <i>elongatus</i>	Slim Tridens	SH	G5T4?		
<i>Trifolium carolinianum</i>	Carolina Clover	SH	G5		
<i>Trifolium stoloniferum</i>	Running Buffalo Clover	S1	G3	E	E
<i>Trillium nivale</i>	Snow Trillium	S3?	G4		
<i>Trillium pusillum</i> var. <i>ozarkanum</i>	Ozark Wake Robin	S2	G3T3		
<i>Triodanis holzingeri</i>	A Venus' Looking Glass	SH	G4		
<i>Triodanis lamprosperma</i>	A Venus' Looking Glass	S2	G5?		
<i>Turritis glabra</i>	Tower Mustard	SH	G5		
<i>Typha domingensis</i>	Southern Cattail	S1	G4G5		
<i>Ulmus crassifolia</i>	Cedar Elm	S1	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FLOWERING PLANTS (Cont.)					
<i>Ulmus thomasii</i>	Rock Elm	S2	G5		
<i>Urtica chamaedryoides</i>	Weak Nettle	S1	G4G5		
<i>Utricularia minor</i>	Lesser Bladderwort	S1	G5		
<i>Utricularia subulata</i>	Slender Bladderwort	S1	G5		
<i>Valerianella ozarkana</i>	Ozark Corn Salad	S2	G3		
<i>Veronica americana</i>	American Brooklime	SH	G5		
<i>Viburnum dentatum</i>	Southern Arrow-wood	S1	G5		
<i>Viburnum lentago</i>	Nannyberry	S1	G5		
<i>Viburnum ozarkense</i>	Ozark Arrow Wood	S2S3	GNR		
<i>Viburnum recognitum</i>	Northern Arrow-wood	S1	G4G5		
<i>Vicia ludoviciana</i> var. <i>leavenworthii</i>	Louisiana Vetch	SH	G5T5		
<i>Vicia minutiflora</i>	Pygmy-flowered Vetch	SH	G5		
<i>Viola macloskeyi</i> ssp. <i>pallens</i>	Smooth White Violet	S2	G5T5		
<i>Vitis rotundifolia</i> var. <i>rotundifolia</i>	Muscadine	S1	G5T5		
<i>Waldsteinia fragarioides</i> ssp. <i>fragarioides</i>	Barren Strawberry	S2	G5T5		
<i>Wolfia borealis</i>	Dotted Watermeal	SU	G5		
<i>Wolfia columbiana</i>	Columbia Water-meal	SU	G5		
<i>Wolffiella gladiata</i>	Wolffiella	S1	G5		
<i>Xyris jupicai</i>	Yellow-eyed-grass	S1	G5		
<i>Xyris torta</i>	Yellow-eyed Grass	S1	G5		
<i>Yucca arkansana</i>	Arkansas Yucca	S2	G5		
<i>Yucca glauca</i>	Small Soapweed Yucca	S2	G5		
<i>Zannichellia palustris</i> var. <i>major</i>	Horned Pondweed	S3?	G5TNR		
<i>Zigadenus elegans</i> ssp. <i>glaucus</i>	White Camas	S2	G5T4T5		
<i>Zigadenus nuttallii</i>	Death Camas	S1	G5		
<i>Zizania palustris</i> var. <i>interior</i>	Interior Wild Rice	SH	G4G5T4T5		
Total Flowering Plant Records:					
467					
FLATWORMS					
<i>Macrocotyla glandulosa</i>	Pink Planarian	S1	G2G3		
<i>Macrocotyla lewisi</i>	Lewis' Cave Planarian	S1	G1		
<i>Sphaloplana evaginata</i>	Perryville Cave Planarian	S1	G1G2		
<i>Sphaloplana hubrichti</i>	Hubricht's Cave Planarian	S1	G2G4		
Total Flatworm Records: 4					
MOLLUSKS					
<i>Alasmidonta marginata</i>	Elktoe	S2	G4		
<i>Alasmidonta viridis</i>	Slippershell Mussel	S2	G4G5		
<i>Amnicola stygia</i>	Stygian Cavesnail	S1	G1		
<i>Anodontula suborbiculata</i>	Flat Floater	S2	G5		
<i>Anodontoides ferussacianus</i>	Cylindrical Papershell	S1	G5		
<i>Antrobia culveri</i>	Tumbling Creek Cavesnail	S1	G1	E	E
<i>Arcidens confragosus</i>	Rock Pocketbook	S3	G4		
<i>Campeloma crassulum</i>	Ponderous Campeloma	SU	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
MOLLUSKS (Cont.)					
<i>Cumberlandia monodonta</i>	Spectaclecase	S3	G3		C
<i>Cyprogenia aberti</i>	Western Fanshell	S2	G2G3Q		
<i>Discus nigromontanus</i>	Black Mountain Disc	S3	G4		
<i>Elliptio crassidens</i>	Elephantear	S1	G5	E	
<i>Epioblasma florentina curtisi</i>	Curtis Pearlmussel	S1	G1T1	E	E
<i>Epioblasma triquetra</i>	Snuffbox	S1	G3	E	
<i>Fontigens aldrichi</i>	Ozark Springsnail	S4	G4		
<i>Fontigens antroecetes</i>	Enigmatic Cavesnail	S2	G2		
<i>Fontigens proserpina</i>	Proserpine Cavesnail	S1	G1		
<i>Fusconaia ebena</i>	Ebonyshell	S1	G4G5	E	
<i>Gastrocopta cristata</i>	Crested Snaggletooth	S1	G5		
<i>Gastrocopta pellucida</i>	Slim Snaggletooth	S1	G5		
<i>Hendersonia occulta</i>	Cherrystone Snail	S3	G4		
<i>Lampsilis abrupta</i>	Pink Mucket	S2	G2	E	E
<i>Lampsilis higginsii</i>	Higgins Eye	S1	G1	E	E
<i>Lampsilis rafinesqueana</i>	Neosho Mucket	S2	G2		C
<i>Lampsilis reeviana brittii</i>	Northern Broken-ray	S3	G4T3		
<i>Leptodea leptodon</i>	Scaleshell	S1	G1G2	E	E
<i>Leptoxis arkansensis</i>	Arkansas Mudalia	S1	G1		
<i>Ligumia recta</i>	Black Sandshell	S2	G5		
<i>Lioplax sulculosa</i>	Furrowed Lioplax	S1	G5		
<i>Mesodon mitchellianus</i>	Sealed Goblet	S1	G4		
<i>Micromenetus sampsoni</i>	A Freshwater Snail	S2	G2G3Q		
<i>Millerelix deltoidea</i>	A Snail	SU	G2		
<i>Neohelix divesta</i>	Ozark Whitelip	S3	G3G4		
<i>Obovaria jacksoniana</i>	Southern Hickorynut	S1	G2		
<i>Obovaria olivaria</i>	Hickorynut	S3	G4		
<i>Patera perigrapta</i>	Engraved Bladetooth	S2	G5		
<i>Plectomerus dombeyanus</i>	Bankclimber	S3	G5		
<i>Plethobasus cyphyus</i>	Sheepnose	S2	G3	E	C
<i>Pleurocera alveare</i>	Rough Hornsnail	S1S3	G3		
<i>Potamilus capax</i>	Fat Pocketbook	S1	G1G2	E	E
<i>Ptychobranchus occidentalis</i>	Ouachita Kidneyshell	S3	G3G4		
<i>Pyrgulopsis scalariformis</i>	Moss Pyrg	S1	G1		
<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot	S1	G3G4T3		C
<i>Quadrula fragosa</i>	Winged Mapleleaf	S1	G1	E	E
<i>Quadrula nodulata</i>	Wartyback	S3	G4		
<i>Simpsonaias ambigua</i>	Salamander Mussel	S1	G3		
<i>Somatogyrus depressus</i>	Sandbar Pebblesnail	S?	G2		
<i>Somatogyrus rosewateri</i>	Chert Pebblesnail	S1	G1		
<i>Stagnicola elodes</i>	Marsh Pondsail	S2	G5		
<i>Stenotrema stenotrema</i>	Inland Slitmouth	S3	G5		
<i>Strobilops affinis</i>	Eightfold Pinecone	S2	G4G5		
<i>Toxolasma lividus</i>	Purple Lilliput	S2	G2		
<i>Toxolasma texasiensis</i>	Texas Lilliput	S3	G4		
<i>Triodopsis cragini</i>	Post Oak Threetooth	SH	G4		
<i>Ventridens demissus</i>	Perforate Dome	SU	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
MOLLUSKS (Cont.)					
<i>Vertigo oscariana</i>	Capital Vertigo	S1	G4		
<i>Zonitoides limatulus</i>	Dull Gloss	S1	G4G5		
Total Mollusk Records: 57					
ARACHNIDS					
<i>Apochthonius mysterius</i>	Mystery Cave Pseudoscorpion	S1	G1G2		
<i>Apochthonius typhlus</i>	Stone County Cave Pseudoscorpion	S1	G1G2		
<i>Hesperochernes occidentalis</i>	Guano Pseudoscorpion	S3	G5		
<i>Mundochthonius caverniculus</i>	Cavernicolous Pseudoscorpion	SU	G1G2		
<i>Phanetta subterranea</i>	Subterranean Cave Spider	S1	G5		
<i>Porrhomma cavernicola</i>	Cavernicolous Porrhomma Spider	S2	G5		
Total Arachnid Records: 6					
CRUSTACEANS					
<i>Allocrangonyx hubrichti</i>	Hubricht's Long-tailed Amphipod	S3	G3		
<i>Bactrurus brachycaudus</i>	Short-tailed Groundwater Amphipod	S4	G4		
<i>Bactrurus hubrichti</i>	Sword-tail Cave Amphipod	S1	G4		
<i>Bactrurus pseudomucronatus</i>	False Sword-tailed Cave Amphipod	S2	G2G3		
<i>Brackenridgia ashleyi</i>	Ashley's Isopod	S2	G1G3		
<i>Caecidotea antricola</i>	Cave Isopod	S4	G5		
<i>Caecidotea dimorpha</i>	An Isopod	S1S3	G2G3		
<i>Caecidotea fustis</i>	Fustis Cave Isopod	S2	G2G3		
<i>Caecidotea salemensis</i>	Salem Cave Isopod	S2	G4		
<i>Caecidotea serrata</i>	Serrated Cave Isopod	S1	G1G2		
<i>Caecidotea stiladactyla</i>	Slender-fingered Cave Isopod	S1	G3G4		
<i>Caecidotea stygia</i>	Stygian Cave Isopod	S1	G5		
<i>Cambarellus puer</i>	Cajun Dwarf Crayfish	S3?	G5		
<i>Cambarellus shufeldtii</i>	Shufeldt's Dwarf Crayfish	S3?	G5		
<i>Cambarus aculabrum</i>	Cave Crayfish	SP	G1	E	
<i>Cambarus hubrichti</i>	Salem Cave Crayfish	S3	G4		
<i>Cambarus ludovicianus</i>	Painted Devil Crayfish	SU	G5		
<i>Cambarus maculatus</i>	Freckled Crayfish	S3	G4		
<i>Cambarus setosus</i>	Bristly Cave Crayfish	S3	G3		
<i>Diacyclops yeastmani</i>	Yeatman's Groundwater Copepod	S1S3	G2G3		
<i>Fallicambarus fodiens</i>	Digger Crayfish	S2S3	G5		
<i>Faxonella clypeata</i>	Shield Crayfish	S2S3	G5		
<i>Lirceus megapodus</i>	An Isopod	SU	GNR		
<i>Macrobrachium ohione</i>	Freshwater Shrimp	S1	G4		
<i>Orconectes eupunctus</i>	Coldwater Crayfish	S2	G2		
<i>Orconectes harrisonii</i>	Belted Crayfish	S3	G3		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
CRUSTACEANS (Cont.)					
<i>Orconectes lancifer</i>	Shrimp Crayfish	S1S2	G5		
<i>Orconectes marchandi</i>	Mammoth Spring Crayfish	S1S2	G2		
<i>Orconectes meeki meeki</i>	Meek's Crayfish	S1	G4T4		
<i>Orconectes peruncus</i>	Big Creek Crayfish	S2	G2		
<i>Orconectes quadruncus</i>	St. Francis River Crayfish	S2	G2		
<i>Orconectes stygocaneyi</i>	Caney Mountain Cave Crayfish	S1	G1		
<i>Orconectes williamsi</i>	Williams' Crayfish	S2	G3G4		
<i>Procambarus viaeviridis</i>	Vernal Crayfish	S3?	G5		
<i>Stygobromus barri</i>	Barr's Groundwater Amphipod	S1S3	G2G3		
<i>Stygobromus clantonii</i>	Clanton's Groundwater Amphipod	S1S3	G4		
<i>Stygobromus heteropodus</i>	Pickle Springs Amphipod	SX	G1G2		
<i>Stygobromus onondagaensis</i>	Onondaga Cave Amphipod	S3?	G5		
<i>Stygobromus ozarkensis</i>	Ozark Cave Amphipod	S3?	G4		
<i>Stygobromus subtilis</i>	Subtle Groundwater Amphipod	S1S3	G3G4		
<i>Triops longicaudatus</i>	Tadpole Shrimp	SU	G5		
Total Crustacean Records: 41					
MILLIPEDES					
<i>Causeyella dendropus</i>	Causeyella Cave Millipede	S2	G1G3		
<i>Chaetaspis aleyorum</i>	Aleys' Cave Millipede	S1	G1		
<i>Tingupa pallida</i>	Tingupa Cave Millipede	S4	G4		
<i>Zosteractis interminata</i>	Zosteractis Cave Millipede	SU	G2G3		
Total Millipede Records: 4					
INSECTS					
<i>Acroneuria ozarkensis</i>	Ozark Stone	S2	G2		
<i>Agapetus artesus</i>	Artesian Agapetus	S3	G3		
<i>Aleochara speculicollis</i>	Caddisfly	SU	GNR		
<i>Allocapnia pygmaea</i>	A Staphylinid Beetle	S3	G5		
<i>Alloperla hamata</i>	Barbed Sallfly	S3	G4		
<i>Alloperla leonarda</i>	Truncate Sallfly	S3	G4		
<i>Amblytropidia mysteca</i>	A Glade Grasshopper	SU	G5		
<i>Amphiagrion saucium</i>	Eastern Red Damsel	S2	G5		
<i>Andrena beameri</i>	An Andrenid Bee	S3	GNR		
<i>Argia alberta</i>	Paiute Dancer	S1	G4		
<i>Arigomphus maxwelli</i>	Bayou Clubtail	SU	G5		
<i>Arrhopalites clarus</i>	Clarus Cave Springtail	S3	G4		
<i>Attaneuria ruralis</i>	Giant Stone	S3	G4		
<i>Baetisca obesa</i>	A Mayfly	S3	G5		
<i>Beameria venosa</i>	A Concealed-tymbal Cicada	S3	GNR		
<i>Bibloplectus chickasaw</i>	A Staphylinid Beetle	SU	GNR		
<i>Calephelis borealis</i>	Northern Metalmark	S1	G3G4		
<i>Calephelis muticum</i>	Swamp Metalmark	S3	G3		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
INSECTS (Cont.)					
<i>Catocala marmorata</i>	Marbled Underwing Moth	S3	G3G4		
<i>Catocala pretiosa texarkana</i>	Precious Underwing Moth	S3?	G4T4		
<i>Ceratopsyche piatrix</i>	A Net-spinning Caddisfly	S4	G4		
<i>Chalybion zimmermanni zimmermanni</i>	A Blue Mud Dauber	SU	GNRTNR		
<i>Cicindela celeripes</i>	Swift Tiger Beetle	S1	G1G3		
<i>Cicindela circumdata johnsonii</i>	Saline Spring Tiger Beetle	S1	G5T5		
<i>Cicindela pruinina</i>	Loamy-ground Tiger Beetle	S1	GNR		
<i>Conocephalus saltans</i>	Prairie Meadow Katydid	S3	GNR		
<i>Deinopsis virginiana</i>	A Staphylinid Beetle	SU	GNR		
<i>Derops divalis</i>	A Staphylinid Beetle	S3	GNR		
<i>Euphyes dukesi</i>	Duke's Skipper	S1	G3		
<i>Formica creightoni</i>	Creighton's Slavemaking Ant	S3	GNR		
<i>Formica fossaceps</i>	An Ant	SU	GNR		
<i>Formica querquetulana</i>	An Ant	S3	GNR		
<i>Gennadota canadensis</i>	A Staphylinid Beetle	SU	GNR		
<i>Glyphopsyche missouri</i>	Missouri Glyphopsyche Caddisfly	S1	G1		
<i>Gomphus fraternus</i>	Midland Clubtail	SU	G5		
<i>Gomphus ventricosus</i>	Skillet Clubtail	SU	G3		
<i>Gryllotalpa major</i>	Prairie Mole Cricket	S3	G3		
<i>Hesperia ottoe</i>	Ottoe Skipper	S1	G3G4		
<i>Hesperus stehri</i>	A Staphylinid Beetle	SU	GNR		
<i>Hydroperla fugitans</i>	Austin Springfly	S3	G3		
<i>Inscudderia taxodii</i>	Bald Cypress Katydid	S1	GNR		
<i>Isoperla burksi</i>	Banded Stripetail	S3	G4		
<i>Isoperla longiseta</i>	Plains Stripetail	SX	G5		
<i>Lasia purpurata</i>	Purple Small-headed Fly	SU	GNR		
<i>Leptysma marginicollis</i>	Cattail Toothpick Grasshopper	S2S3	G5		
<i>Leucotrichia pictipes</i>	A Micro Caddisfly	S3	G5		
<i>Libellula auripennis</i>	Golden-winged Skimmer	SU	G5		
<i>Lordithon niger</i>	A Staphylinid Beetle	S3	GU		
<i>Lytrosis permagnaria</i>	Geometrid Moth	SU	G3G4		
<i>Melanoplus fasciatus</i>	Huckleberry Grasshopper	S3	G5		
<i>Melanoplus impudicus</i>	Immodest Grasshopper	S3	G4G5		
<i>Melanoplus packardii</i>	Packard's Grasshopper	S2	G5		
<i>Melanoplus punctulatus griseus</i>	Grizzly Grasshopper	SU	G4T4		
<i>Melanoplus viridipes viridipes</i>	Green-legged Grasshopper	S3	G4		
<i>Melissodes intorta</i>	A Callirhoe Bee	S1	GNR		
<i>Mermiria picta</i>	Mermiria Grasshopper	S3	G5		
<i>Merope tuber</i>	A Meropid Scorpionfly	S3	G3G5		
<i>Metaleptea brevicornis</i>	Short-horned Grasshopper	S4	G5		
<i>Nehalennia gracilis</i>	Sphagnum Sprite	S1?	G5		
<i>Nehalennia irene</i>	Sedge Sprite	S1	G5		
<i>Neoconocephalus bivocatus</i>	Two-voiced Conehead Katydid	S3	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
INSECTS (Cont.)					
<i>Neoconocephalus exiliscanorus</i>	Slightly-musical Conehead Katydid	S3	GNR		
<i>Neoconocephalus lyristes</i>	Bog Conehead Katydid	S3	GNR		
<i>Neoconocephalus retusus</i>	Round-tipped Conehead Katydid	S4?	GNR		
<i>Neoperla carlsoni</i>	Spiny Stone	S3?	G4		
<i>Neotrichia kitae</i>	Kite's Neotrichian Caddisfly	SU	GU		
<i>Neotridactylus apicialis</i>	Larger Pygmy Grasshopper	SU	GNR		
<i>Nicrophorus americanus</i>	American Burying Beetle	SH	G2G3	E	E
<i>Ochrotrichia contorta</i>	Contorted Ochrotrichian Micro Caddisfly	SU	G1G2		
<i>Oecleus chrisjohni</i>	A Cixiid Planthopper	SU	GNR		
<i>Oncopodura hoffi</i>	Hoff's Cave Springtail	S1S3	G1G2		
<i>Oxybleptes kiteleyi</i>	A Staphylinid Beetle	SU	GNR		
<i>Pardalophora saussurei</i>	A Glade Grasshopper	SU	G5		
<i>Paroxya hoosieri</i>	Hoosier Grasshopper	S1	G5		
<i>Pentacora signoreti</i>	A Shore Bug	S1	GNR		
<i>Phoetaliotes nebrascensis</i>	Large-headed Grasshopper	S3	G5		
<i>Phrixocnemis triculentus</i>	Truculent Camel Cricket	SU	GNR		
<i>Phyllobrotica lengi</i>	A Leaf Beetle	SU	GNR		
<i>Phyllobrotica nigritarsus</i>	A Leaf Beetle	SU	GNR		
<i>Phyllobrotica physostegiae</i>	A Leaf Beetle	S4?	GNR		
<i>Ponera exotica</i>	An Ant	S3	GNR		
<i>Prostoia similis</i>	Longhorn Forestfly	S3	G5		
<i>Pseudomasaris occidentalis</i>	A Pollen Wasp	S3	GNR		
<i>Pseudosinella espana</i>	Espana Cave Springtail	S3	G2G3		
<i>Psinidia fenestralis</i>	Sand Grasshopper	S2S3	G5		
<i>Satyrodes appalachia leeuwi</i>	Appalachian Eyed Brown	S1	G4T4		
<i>Sepedophilus campbelli</i>	A Staphylinid Beetle	SU	GNR		
<i>Serratella frisoni</i>	Frison's Seratellan Mayfly	S2	G4		
<i>Sinella avita</i>	Avita Cave Springtail	SU	G3G4		
<i>Sinella barri</i>	Barr's Cave Springtail	SU	G5		
<i>Somatochlora hineana</i>	Hine's Emerald	S2	G2G3	E	E
<i>Somatochlora ozarkensis</i>	Ozark Emerald	S2S3	G3		
<i>Somatochlora provocans</i>	Treetop Emerald	S1	G4		
<i>Speyeria diana</i>	Diana Fritillary	SA	G3G4		
<i>Speyeria idalia</i>	Regal Fritillary	S3	G3		
<i>Stenonema bednariki</i>	A Heptageniid Mayfly	S3	G2G4		
<i>Stethophyma celatum</i>	Sedge Grasshopper	S3	G4		
<i>Stylurus intricatus</i>	Brimstone Clubtail	S1S2	G4		
<i>Stylurus notatus</i>	Elusive Clubtail	S2S3	G3		
<i>Telebasis byersi</i>	Duckweed Firetail	S1	G5		
<i>Telebasis salva</i>	Desert Firetail	SU	G5		
<i>Tettigidea armata</i>	Spined Grouse Locust	S2S3	G5		
<i>Tomocerus missus</i>	Missus Cave Springtail	SU	G4		
<i>Trimerotropis maritima</i>	Seaside Grasshopper	SH	G5		
<i>Xenochalepus potomaca</i>	A Leaf Beetle	SU	GNR		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
INSECTS (Cont.)					
Xenotrechus condei	Northern Xenotrechus Cave Beetle	S1	G1G2		
Xenotrechus denticollis	Southern Xenotrechus Cave Beetle	S1	G1G2		
Xylocromus capito	A Staphylinid Beetle	SU	GNR		
Total Insect Records: 108					
FISH					
Acipenser fulvescens	Lake Sturgeon	S1	G3G4	E	
Alosa alabamae	Alabama Shad	S2	G3		
Amblyopsis rosae	Ozark Cavefish	S2	G3	E	T
Ameiurus nebulosus	Brown Bullhead	S3?	G5		
Ammocrypta clara	Western Sand Darter	S2S3	G3		
Ammocrypta vivax	Scaly Sand Darter	S3	G5		
Atractosteus spatula	Alligator Gar	SU	G3G4		
Carpoides velifer	Highfin Carpsucker	S2	G4G5		
Centrarchus macropterus	Flier	S3	G5		
Cottus sp. cf. carolinae	Grotto Sculpin	S1	G1G2Q		C
Crystallaria asprella	Crystal Darter	S1	G3	E	
Cyprinella camura	Bluntnose Shiner	S2S3	G5		
Erimyzon suetta	Lake Chubsucker	S2	G5		
Etheostoma cragini	Arkansas Darter	S3S4	G3G4		C
Etheostoma euzonum erizorum	Current Saddled Darter	S3	G3G4T3T4		
Etheostoma euzonum euzonum	Arkansas Saddled Darter	S2	G3G4T3T4		
Etheostoma fusiforme	Swamp Darter	S1	G5	E	
Etheostoma histrio	Harlequin Darter	S2	G5	E	
Etheostoma microperca	Least Darter	S2	G5		
Etheostoma nianguae	Niangua Darter	S2	G2	E	T
Etheostoma parvipinne	Goldstripe Darter	S1	G4G5	E	
Etheostoma whipplei	Redfin Darter	S1	G4	E	
Forbesichthys agassizi	Spring Cavefish	S1	G4G5	E	
Fundulus chrysotus	Golden Topminnow	S1	G5		
Fundulus dispar	Starhead Topminnow	S2	G4		
Fundulus kansae	Northern Plains Killifish	S2	GNR		
Fundulus sciadicus	Plains Topminnow	S3	G4		
Hybognathus argyritis	Western Silvery Minnow	S2	G4		
Hybognathus hankinsoni	Brassy Minnow	S3	G5		
Hybognathus hayi	Cypress Minnow	S1	G5	E	
Hybognathus nuchalis	Mississippi Silvery Minnow	S3S4	G5		
Hybognathus placitus	Plains Minnow	S2	G4		
Hybopsis amnis	Pallid Shiner	SX	G4		
Ichthyomyzon gagei	Southern Brook Lamprey	S2S3	G5		
Lampetra appendix	American Brook Lamprey	S2	G4		
Lepomis marginatus	Dollar Sunfish	S2	G5		
Lepomis symmetricus	Bantam Sunfish	S2	G5		
Macrhybopsis gelida	Sturgeon Chub	S3	G3		
Mugil cephalus	Striped Mullet	SA	G5		

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
FISH (Cont.)					
<i>Notropis buchanani</i>	Ghost Shiner	S2	G5		
<i>Notropis chalybaeus</i>	Ironcolor Shiner	S1	G4		
<i>Notropis heterolepis</i>	Blacknose Shiner	S2	G4		
<i>Notropis maculatus</i>	Taillight Shiner	S1	G5	E	
<i>Notropis ozarkanus</i>	Ozark Shiner	S2	G3		
<i>Notropis sabinae</i>	Sabine Shiner	S1	G4	E	
<i>Notropis texanus</i>	Weed Shiner	S3	G5		
<i>Notropis topeka</i>	Topeka Shiner	S1	G3	E	E
<i>Noturus eleutherus</i>	Mountain Madtom	S1S2	G4	E	
<i>Noturus flavater</i>	Checkered Madtom	S3S4	G3G4		
<i>Noturus placidus</i>	Neosho Madtom	S1	G2	E	T
<i>Opsopoeodus emiliae</i>	Pugnose Minnow	S4	G5		
<i>Percina copelandi</i>	Channel Darter	S3	G4		
<i>Percina cymatotaenia</i>	Bluestripe Darter	S2	G2		
<i>Percina nasuta</i>	Longnose Darter	S1	G3	E	
<i>Percina shumardi</i>	River Darter	S3	G5		
<i>Percina uranidea</i>	Stargazing Darter	S2	G3		
<i>Percopsis omiscomaycus</i>	Trout-perch	S1?	G5		
<i>Pimephales tenellus parviceps</i>	Eastern Slim Minnow	S2S3	G4T2T3		
<i>Pimephales tenellus tenellus</i>	Western Slim Minnow	S3	G4T4		
<i>Platygobio gracilis</i>	Flathead Chub	S1	G5	E	
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	S1	G2	E	E
<i>Typhlichthys subterraneus</i>	Southern Cavefish	S2S3	G3G4		
<i>Umbra limi</i>	Central Mudminnow	S1	G5	E	

Total Fish Records: 63

AMPHIBIANS

<i>Ambystoma annulatum</i>	Ringed Salamander	S3	G4		
<i>Ambystoma talpoideum</i>	Mole Salamander	S2	G5		
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	SU	G5		
<i>Amphiuma tridactylum</i>	Three-toed Amphiuma	S2	G5		
<i>Anaxyrus cognatus</i>	Great Plains Toad	SU	G5		
<i>Cryptobranchus alleganiensis</i> alleganiensis	Eastern Hellbender	S1	G3G4T3T4	E	
<i>Cryptobranchus alleganiensis</i> bishopi	Ozark Hellbender	S1	G3G4T2Q	E	E
<i>Eurycea spelaea</i>	Grotto Salamander	S2S3	G4		
<i>Hemidactylium scutatum</i>	Four-toed Salamander	S4	G5		
<i>Lithobates areolatus circulosus</i>	Northern Crawfish Frog	S3	G4T4		
<i>Lithobates pipiens</i>	Northern Leopard Frog	S2	G5		
<i>Lithobates sylvaticus</i>	Wood Frog	S3	G5		
<i>Necturus maculosus louisianensis</i>	Red River Mudpuppy	SU	G5T4		
<i>Necturus maculosus maculosus</i>	Common Mudpuppy	SU	G5T5		
<i>Pseudacris illinoensis</i>	Illinois Chorus Frog	S2	G5T3		
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	S2	G5		

Total Amphibian Records: 16

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
REPTILES					
<i>Cemophora coccinea copei</i>	Northern Scarlet Snake	S2S3	G5T5		
<i>Clonophis kirtlandii</i>	Kirtland's Snake	S1	G2		
<i>Crotaphytus collaris</i>	Eastern Collared Lizard	S4	G5		
<i>Deirochelys reticularia miaria</i>	Western Chicken Turtle	S1	G5T5	E	
<i>Emydoidea blandingii</i>	Blanding's Turtle	S1	G4	E	
<i>Farancia abacura reinwardtii</i>	Western Mudsnake	S2	G5T5		
<i>Heterodon gloydi</i>	Dusty Hog-nosed Snake	S1	G5T3T4Q		
<i>Heterodon nasicus</i>	Plains Hog-nosed Snake	SX	G5		
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	S1	G5	E	
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	S2	G3G4		
<i>Nerodia cyclopion</i>	Mississippi Green Watersnake	SX	G5	E	
<i>Opheodrys vernalis</i>	Smooth Greensnake	SX	G5		
<i>Pantherophis vulpinus</i>	Western Foxsnake	S1	G5		
<i>Phrynosoma cornutum</i>	Texas Horned Lizard	S2	G4G5		
<i>Plestiodon obsoletus</i>	Great Plains Skink	S2	G5		
<i>Plestiodon septentrionalis obtusirostris</i>	Southern Prairie Skink	S3	G5T5		
<i>Plestiodon septentrionalis septentrionalis</i>	Northern Prairie Skink	S3	G5T5		
<i>Sistrurus catenatus catenatus</i>	Eastern Massasauga	S1	G3G4T3T4Q	E	C
Total Reptile Records: 18					

BIRDS (See Appendix A for Tracking Criteria)

<i>Accipiter striatus</i>	Sharp-shinned Hawk	S2	G5		
<i>Anhinga anhinga</i>	Anhinga	SU	G5		
<i>Ardea alba</i>	Great Egret	S3	G5		
<i>Asio flammeus</i>	Short-eared Owl	S2	G5		
<i>Asio otus</i>	Long-eared Owl	SU	G5		
<i>Athene cunicularia</i>	Burrowing Owl	SX	G4		
<i>Bonasa umbellus</i>	Ruffed Grouse	SU	G5		
<i>Botaurus lentiginosus</i>	American Bittern	S1	G4	E	
<i>Buteo swainsoni</i>	Swainson's Hawk	S2	G5		
<i>Campephilus principalis</i>	Ivory-billed Woodpecker	SX	G1		E
<i>Certhia americana</i>	Brown Creeper	SU	G5		
<i>Chlidonias niger</i>	Black Tern	SX	G4		
<i>Circus cyaneus</i>	Northern Harrier	S2	G5	E	
<i>Cistothorus palustris</i>	Marsh Wren	S3	G5		
<i>Coragyps atratus</i>	Black Vulture	S3	G5		
<i>Corvus corax</i>	Common Raven	SX	G5		
<i>Coturnicops noveboracensis</i>	Yellow Rail	SU	G4		
<i>Cygnus buccinator</i>	Trumpeter Swan	S1	G4		
<i>Dendroica cerulea</i>	Cerulean Warbler	S2S3	G4		
<i>Dendroica pensylvanica</i>	Chestnut-sided Warbler	SU	G5		
<i>Dendroica virens</i>	Black-throated Green Warbler	SU	G5		
<i>Egretta caerulea</i>	Little Blue Heron	S3	G5		
<i>Egretta thula</i>	Snowy Egret	S1	G5	E	

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
BIRDS (Cont.)					
<i>Elanoides forficatus</i>	Swallow-tailed Kite	SX	G5		
<i>Empidonax minimus</i>	Least Flycatcher	SU	G5		
<i>Falco peregrinus</i>	Peregrine Falcon	S1	G4	E	
<i>Gallinula chloropus</i>	Common Moorhen	S2	G5		
<i>Geococcyx californianus</i>	Greater Roadrunner	S3	G5		
<i>Grus canadensis</i>	Sandhill Crane	S1	G5		
<i>Haliaeetus leucocephalus</i>	Bald Eagle	S3	G5		
<i>Ictinia mississippiensis</i>	Mississippi Kite	S3	G5		
<i>Ixobrychus exilis</i>	Least Bittern	S3	G5		
<i>Lanius ludovicianus</i>	Loggerhead Shrike	S2	G4		
<i>Laterallus jamaicensis</i>	Black Rail	SU	G4		
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	S2	G4	E	
<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	S3	G5		
<i>Pandion haliaetus</i>	Osprey	S2	G5		
<i>Passerina ciris</i>	Painted Bunting	S3	G5		
<i>Peucaea aestivalis</i>	Bachman's Sparrow	S1	G3	E	
<i>Picoides borealis</i>	Red-cockaded Woodpecker	SX	G3		E
<i>Porzana carolina</i>	Sora	S2	G5		
<i>Rallus elegans</i>	King Rail	S1	G4	E	
<i>Rallus limicola</i>	Virginia Rail	S2	G5		
<i>Sitta pusilla</i>	Brown-headed Nuthatch	SX	G5		
<i>Spinus pinus</i>	Pine Siskin	SU	G5		
<i>Sterna antillarum athalassos</i>	Interior Least Tern	S1	G4T2Q	E	E
<i>Tympanuchus cupido</i>	Greater Prairie-chicken	S1	G4	E	
<i>Tyto alba</i>	Barn Owl	S3	G5		
<i>Vermivora bachmanii</i>	Bachman's Warbler	SX	GH		E
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird	S3	G5		
Total Bird Records: 50					

MAMMALS

<i>Bos bison</i>	American Bison	SX	G4		
<i>Canis lupus</i>	Gray Wolf	SX	G4	E	
<i>Canis rufus</i>	Red Wolf	SX	G1Q	E	
<i>Cervus elaphus</i>	Elk or Wapiti	S?	G5		
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	SU	G3G4		
<i>Corynorhinus townsendii ingens</i>	Ozark Big-eared Bat	SX	G4T1	E	E
<i>Ictidomys tridecemlineatus</i>	Thirteen-lined Ground Squirrel	SU	G5		
<i>Lasionycteris noctivagans</i>	Silver-haired Bat	SU	G5		
<i>Lasiurus seminolus</i>	Seminole Bat	SA	G5		
<i>Lepus californicus</i>	Black-tailed Jackrabbit	S1	G5	E	
<i>Lepus townsendii</i>	White-tailed Jackrabbit	SX	G5		
<i>Mustela frenata</i>	Long-tailed Weasel	S3	G5		
<i>Mustela nivalis</i>	Least Weasel	S3	G5		
<i>Myotis austroriparius</i>	Southeastern Bat	S1	G3G4		
<i>Myotis grisescens</i>	Gray Bat	S3	G3	E	E

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>SRANK</u>	<u>GRANK</u>	<u>STATE STATUS</u>	<u>FEDERAL STATUS</u>
MAMMALS (Cont.)					
<i>Myotis leibii</i>	Eastern Small-footed Myotis	SU	G3		
<i>Myotis sodalis</i>	Indiana Bat	S1	G2	E	E
<i>Ochrotomys nuttalli</i>	Golden Mouse	S3	G5		
<i>Oryzomys palustris</i>	Rice Rat	SU	G5		
<i>Perognathus flavescens</i>	Plains Pocket Mouse	S2	G5		
<i>Peromyscus gossypinus</i>	Cotton Mouse	S2	G5		
<i>Poliocitellus franklinii</i>	Franklin's Ground Squirrel	S2S3	G5		
<i>Puma concolor</i>	Mountain Lion	SX	G5		
<i>Reithrodontomys montanus</i>	Plains Harvest Mouse	S2	G5		
<i>Spilogale putorius interrupta</i>	Plains Spotted Skunk	S1	G5T4	E	
<i>Sylvilagus aquaticus</i>	Swamp Rabbit	S2	G5		
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat	SA	G5		
<i>Taxidea taxus</i>	American Badger	SU	G5		

Total Mammal Records: 28

Total Records Processed: 1060

REFERENCES

NATURAL COMMUNITIES

Terrestrial Natural Community Taxonomic Authority:

Nelson, P.W., et al. 2005. The Terrestrial Natural Communities of Missouri, Revised ed. The Missouri Natural Areas Committee. Jefferson City, Missouri. 550pp.

Aquatic Natural Community Taxonomic Authority:

Pflieger, W. L. 1989. Aquatic community classification system for Missouri. Aquatic Series Number 19. Missouri Department of Conservation, Jefferson City, Missouri, USA. 70 p.

For Additional Aquatic Natural Community Information:

Sowa, S.P., G. Annis, M.E. Morey, and D.D. Diamond. 2007. A gap analysis and comprehensive conservation strategy for riverine ecosystems of Missouri. *Ecological Monographs* 77(3): 301-334.

LICHENS

Taxonomic Authority:

Egan, R.S. 1987. A fifth checklist of the lichen-forming, lichenicolous and allied fungi of the continental United States and Canada. *Bryologist* 90:77-173.

For Additional Information:

Ladd, D. 1996. Checklist and bibliography of Missouri lichens. Missouri Department of Conservation. Natural History Series, No. 4. Jefferson City, Missouri. 92 pp.

LIVERWORTS AND HORNWORTS

Taxonomic Authority:

Schuster, R.M. 1966-1992. The Hepaticae and Anthocerotae of North America, six volume series. Columbia Univ. Press, N.Y. and Field Museum of Natural History, Chicago, Illinois.

MOSSES

Taxonomic Authority:

Anderson, Louis E., H.A. Crum, and W.R. Buck. 1990. List of the mosses of North America north of Mexico. *Bryologist* 93:448-499.

Crum, H. 1984. Sphagnopsida: Sphagnaceae. North American Flora, Series 2, 11:i-iv, 1-180.

FERNS AND FERN ALLIES

Taxonomic Authority:

Yatskievych, G. 1999. Steyermark's Flora of Missouri, Vol. 1, Revised ed. Missouri Department of Conservation. Jefferson City, Missouri. 1991 pp.

FLOWERING PLANTS

Taxonomic Authority:

Flora of Missouri Database. 2009. Flora of Missouri Project. Missouri Botanical Garden. St. Louis, Missouri.

FLOWERING PLANTS (Cont.)

For Additional Information:

Denison, E. 2008. Missouri wildflowers: a field guide to wildflowers of Missouri. Sixth ed. Missouri Department of Conservation. Jefferson City, Missouri. 280 pp.

Smith, T.E. 2000. Missouri Plants of Conservation Concern. Missouri Dept. of Conservation. Jefferson City, Missouri. 47pp.

Steyermark, J.A. 1963. Flora of Missouri. Iowa State Press. Ames, Iowa. 1728 pp.

Summers, B. 1996. Missouri orchids. Missouri Department of Conservation. Jefferson City, Missouri. 112 pp.

Yatskievych, G. 1999. Steyermark's Flora of Missouri, Vol. 1, Revised ed. Missouri Department of Conservation. Jefferson City, Missouri. 1991 pp.

Yatskievych, G. 2006. Steyermark's Flora of Missouri, Vol. 2, Revised ed. Missouri Botanical Garden Press. St. Louis, Missouri. 1181 pp.

FLATWORMS

For Additional Information:

Huggins, D.G., P.M. Liechti and L.C. Ferrington, Jr., eds. 1985. Guide to the freshwater invertebrates of the Midwest. Kansas Biological Survey, Technical Publication No. 11. 221 pp.

MOLLUSKS

Taxonomic Authority:

Turgeon, D.D., A.E. Bogan, E.V. Coan, W.K. Emerson, W.G. Lyons, W.L. Pratt, C.F.E. Roper, A. Scheltama, F.G. Thompson and J.D. Williams. 1998. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks, 2nd ed. American Fisheries Society Special Publication No. 26. 526 pp.

For Additional Information:

Oesch, R.D. 1995. Missouri naiades: a guide to the mussels of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 270 pp.

Wu, S.K., R.D. Oesch and M.E. Gordon. 1997. Missouri aquatic snails. Missouri Department of Conservation. Jefferson City, Missouri. Natural History Series, No. 5. 97 pp.

CRUSTACEANS

Taxonomic Authority:

Williams, A.B., et. al. 1989. A list of common and scientific names of decapod crustaceans from America north of Mexico. American Fisheries Society special publication, No. 17. 77 pp.

For Additional Information:

Pflieger, W.L. 1996. The crayfishes of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 152 pp.

INSECTS

Taxonomic Authority:

Poole, R.W. and P. Gentili (Eds.). 1996-97. *Nomina insecta nearctica*. A checklist of the insects of North America. Entomological Information Services. Rockville, M.D. Four volumes.

For Additional Information:

Heitzman, J.R. and J.E. Heitzman. 1987. Butterflies and moths of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 385 pp.

FISH

Taxonomic Authority:

Nelson, J.S., E.J. Crossman, H. Espinosa-Perez, L.T. Findlay, C.R. Gilbert, R. N. Lea, and J.D. Williams. 2004. Common and Scientific Names of Fishes from the United States, Canada, and Mexico. Sixth Edition. American Fisheries Society, Special Publication 29. Bethesda, Maryland.

For Additional Information:

Pflieger, W.L. 1997. The fishes of Missouri Revised Edition. Missouri Department of Conservation. Jefferson City, Missouri. 372 pp.

AMPHIBIANS AND REPTILES

Taxonomic Authority:

Crother, B.I. (ed) and Committee. 2008. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with comments regarding confidence in our understanding (6th edition). Society for the Study of Amphibians and Reptiles. Herpetological Circular No. 37.

For Additional Information:

Johnson, T.R. 2000. The Amphibians and Reptiles of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 400 pp.

Daniel, R.E. and B.S. Edmond. 2007. Atlas of Missouri Amphibians and Reptiles for 2007.
<<http://atlas.moherp.org/pubs/atlas07.pdf>>

Conant, R. and J.T. Collins. 1998. A field guide to reptiles and amphibians of eastern and central North America. Third ed. expanded. Houghton Mifflin. Boston. 616 pp.

BIRDS

Taxonomic Authority:

American Ornithologists' Union. 1998. Check-list of North American birds, 7th Edition. American Ornithologist's Union. Washington, D.C. 829 pp.

For Additional Information:

Jacobs, R. and J.D. Wilson. 1997. Missouri breeding bird atlas. Missouri Department of Conservation. Jefferson City, Missouri. 430 pp.

National Geographic Society. 1987. Field guide to the birds of North America. Second edition. Washington, D.C. 464 pp.

BIRDS (Cont.)

For Additional Information (Cont.):

Robbins, M.B. and D.A. Esterla. 1992. Birds of Missouri: their distribution and abundance. University of Missouri Press. Columbia, Missouri. 399 pp.

MAMMALS

Taxonomic Authority:

Hall, E.R. 1981. The mammals of North America, 2nd edition. John Wiley & Sons, New York, 1181+ pp.

Don E. Wilson & DeeAnn M. Reeder (editors). 2005. Mammal Species of the World. A Taxonomic and Geographic Reference (3rd ed), Johns Hopkins University Press, 2,142 pp.

For Additional Information:

Schwartz, C.W. and E.R. Schwartz. 2001. The wild mammals of Missouri, 2nd Revised edition. University of Missouri Press. Columbia, Missouri. 368 pp.

FOR MORE INFORMATION

The Missouri Department of Conservation collects and manages information on the location and status of species of conservation concern throughout the state. The Natural Heritage Database is a repository for this information.

If you have information on the location or questions about the status of any element on this checklist, please write or call:

Heritage Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 W Truman Blvd
Jefferson City, MO 65109
(573) 522-4115

If you are requesting information about the location of any element on this checklist for the purposes of environmental review, please write:

Policy Coordination
Missouri Department of Conservation
P.O. Box 180
Jefferson City, MO 65109

WEBPAGE

This checklist is updated annually. The most current version is always available by contacting the Missouri Department of Conservation, Resource Science Division. *Checklist* information is also available on the Missouri Department of Conservation's website: <http://mdc.mo.gov/145>.

CITATION

An appropriate citation for this edition of the *Checklist* is:

Missouri Natural Heritage Program. 2012. Missouri species and communities of conservation concern checklist. Missouri Department of Conservation. Jefferson City, Missouri. pp. 51.

APPENDIX A
BIRD SPECIES TRACKED IN HERITAGE AND THEIR CRITERIA FOR EORS
Updated October 7, 2011

Species (ranks)	Regions	Criteria (safe dates), comments
Anseriformes (Ducks, geese, swans)		
Trumpeter Swan (S1, G4)	All (NE, NW)	1
Galliformes (chicken-like birds)		
Ruffed Grouse (SU, G5)	CE, OZ, SL, SE	1
Greater Prairie-chicken (S1, G4)	SW, KC, NW, NE	Anytime observed
Pelecaniformes (pelicans, cormorants, darters)		
Anhinga (SX, G5)	SE	1
Ciconiiformes (herons, egrets, storks, ibises, vultures)		
American Bittern (S1, G4)	All	1- extensive emergent marshes
Least Bittern (S3, G5)	All	1,2 (5/25-8/1)
Great Egret (S3, G5)	All (SE)	1
Snowy Egret (S1, G5)	SE	1
Little Blue Heron (S3, G5)	SE, SL	1
Black-crowned Night-Heron (S3, G5)	All (SE)	1
Black Vulture (S3, G5)	OZ, SE	1
Falconiformes (hawks, falcons, eagles, kites)		
Osprey (S2, G5)	All (confirmed NE, SW)	1- Any large open body of water
Mississippi Kite (S3, G5)	All (SE, SL, NE)	1- Expanding range
Bald Eagle (S3, G4)	All	1- Any large open body of water
Northern Harrier (S2, G5)	All (except OZ, SE)	1
Sharp-shinned Hawk (S2, G5)	All	1
Swallow-tailed Kite (SX, G5)	SE	1- Formerly SE, large rivers
Swainson's Hawk (S2, G5)	SW, KC	1
Peregrine Falcon (S1, G4)	SL, KC	1- Formerly along MO river bluffs
Gruiformes (rails, cranes)		
Sandhill Crane (S1, G5)	NE, NW, CE, SL	1
Black Rail (S1, G4)	All	Anytime observed, large marshes
Yellow Rail (SU, G4)	All	Anytime observed (migrant)
King Rail (S1, G4G5)	All (SE, SL, NE)	1,2 (5/30-7/31)
Virginia Rail (S2, G5)	All	1,2 (5/15-8/1)
Sora (S2, G5)	All	1,2 (5/30-7/31)
Common Moorhen (S2, G5)	All (except OZ)	1,2 (5/30-8/31)
Charadriiformes (gulls, terns, shorebirds)		
Interior Least Tern (S1, G4T2Q)	SE	1- Formerly along MS, MO Rivers
Black Tern (SX, G4)	NW	1
Cuculiformes (cuckoos, roadrunners)		
Greater Roadrunner (S3, G5)	SW, OZ	Anytime observed
Strigiformes (Owls)		
Barn Owl (S3, G5)	All (SE)	1,2 (5/25-8/15)
Long-eared Owl (SU, G5)	All	1-Forests, dense thickets near water
Short-eared Owl (S2, G5)	SW, NW, NE, KC	1,2 (5/1-8/31)
Burrowing Owl (SX, G4)	NW	1

Piciformes (Woodpeckers)

Ivory-billed Woodpecker (SX, G1)	All	Anytime observed
Red-cockaded Woodpecker (SX, G3)	OZ, SE	Anytime observed

Passeriformes (perching birds)

Least Flycatcher (SU, G5)	NE, NW	1,2 (5/27-7/7)
Loggerhead Shrike (S2, G5)	All (SW, KC, NW)	1,2 (4/20-7/20)
Common Raven (SX, G5)	All	Anytime observed
Brown-headed Nuthatch (SX, G5)	OZ, SE	Anytime observed
Brown Creeper (SU, G5)	SL, NE, OZ	1,2 (5/15-9/15)
Marsh Wren (S3, G5)	All (except SW, SE, OZ)	1,2 (5/25-8/25)
Bachman's Warbler (SX, GH)	All	Anytime observed
Chestnut-sided Warbler (S3, G5)	All	1,2 (6/1-8/10)
Black-throated Green Warbler (SU, G5)	SE	1
Cerulean Warbler (S2S3, G4)	All (OZ)	1,2 (6/1-8/10)
Swainson's Warbler (S2, G4)	SE, OZ, SW	1,2 (5/25-8/15)
Bachman's Sparrow (S1, G3)	OZ, SW, SE	1,2 (6/1-8/15)
Painted Bunting (S3, G5)	SW, OZ	1,2 (5/25-8/1)
Yellow-headed Blackbird (S3, G5)	NW (possible anywhere)	1
Pine Siskin (SU, G5)	All	1

MDC Region abbreviations (Regions listed are those in which the species is most likely to be recorded).

CE- Central

KC- Kansas City

NE- Northeast

NW- Northwest

OZ- Ozark

SL- St. Louis

SE- Southeast

SW- Southwest

Explanation of Criteria

1. Confirmed breeding. Evidenced one or more of the following:

- Nest building (except wrens and woodpeckers)
- Nest with egg(s) or young (seen or heard)
- Used nest or eggshells
- Physiological evidence of breeding based upon bird in hand (e.g. brood patch)
- Distraction display or injury feigning
- Recently fledged young
- Adults entering or leaving nest site in circumstances indicating nesting
- Adult carrying fecal sac
- Adult carrying food

2. Probable or possible breeding (valid only between safe dates)

Probable

- Male and female seen together (not part of a flock)
- Bird holding territory
- Seven or more singing males detected in one visit
- Courtship or copulation
- Visiting probable nest site
- Agitated behavior or anxiety call (not provoked by observer)
- Nest building by wrens or woodpeckers

Possible

- Species heard or seen in breeding habitat

PLANTS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New _____ Update with mapping _____ Update without mapping _____
EO ID: _____ Federal Status: _____ State Status: _____ SRANK: _____
Heritage mapper: _____ Heritage map QC'er: _____ Heritage Biologist: _____
Heritage mapping date: _____ Heritage map QC date: _____ Heritage Biologist Date: _____

ELEMENT IDENTIFICATION and LOCATION

Scientific Name: _____ Common Name: _____
Survey Site Name: _____
Directions to the survey site: _____

County(ies): _____
USGS Quadrangle name(s): _____
Township: _____ Range: _____ Section: _____ Quarter Sections: _____
GPS should be in NAD83, zone 15. If not, indicate: NAD _____ Zone _____
UTM: Easting (X) _____ OR: Latitude (N) _____
Northing (Y) _____ Longitude (W) _____
Explanation of possible GPS unit inaccuracy: _____

MAPPING

Attach a map with the species' location clearly marked in hard copy, digital, or shapefile format. No county maps, please.

Person who marked the map (last name, first name): _____

Locational Uncertainty (buffer radius): The mapped location is within _____ Meters OR _____ Feet OR _____ Miles

ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): _____ Surveyor(s) (last name, first name): _____

Abundance (actual and/or estimated number observed): _____

Condition (plants sterile, in bud, flower or fruit, evidence of disease, predation, or exotics): _____

Person hours searching for Element: _____
Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): _____

General Habitat Description: _____

CONSERVATION INFORMATION

Managed Area Name(s): _____

Is EO completely within boundaries of Managed Area(s)? Yes OR Partially

Owner(s): _____

Owner Comments (include address/phone number and other relevant comments): _____

Management Comments (needs for management, protection, monitoring, and/or research): _____

General Comments (include any associated species and/or any other relevant information): _____

Form completed by (last name, first name): _____ Date: _____

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Resource Science Division – Heritage Botanist, Missouri Department of Conservation,
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

HERITAGE BIOLOGIST USE ONLY

EO Rank: _____ Origin Subrank: _____ EO Rank Comments: _____

Reference(s) (include contact information for any new references): _____

Version Author (last name, first name): _____

ANIMALS OF CONSERVATION CONCERN REPORTING FORM

Complete relevant fields for which you have information

HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New _____ Update with mapping _____ Update without mapping _____
EO ID: _____ Federal Status: _____ State Status: _____ SRANK: _____
Heritage mapper: _____ Heritage map QC'er: _____ Heritage Biologist: _____
Heritage mapping date: _____ Heritage map QC date: _____ Heritage Biologist Date: _____

ELEMENT IDENTIFICATION and LOCATION

Scientific Name: _____ Common Name: _____
Survey Site Name: _____
Directions to the survey site: _____

County(ies): _____
USGS Quadrangle name(s): _____
Township: _____ Range: _____ Section: _____ Quarter Sections: _____
GPS should be in NAD83, zone 15. If not, indicate: NAD _____ Zone _____
UTM: Easting (X) _____ OR: Latitude (N) _____
Northing (Y) _____ Longitude (W) _____
Explanation of possible GPS unit inaccuracy: _____

MAPPING

Attach a map with the species' location clearly marked in hard copy, digital, or shapefile format. No county maps, please.

Person who marked the map (last name, first name): _____

Locational Uncertainty (buffer radius): The mapped location is within _____ Meters OR _____ Feet OR _____ Miles

ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): _____ Surveyor(s) (last name, first name): _____

Abundance (actual and/or estimated number observed): _____

Condition (evidence of reproduction, disease, predation, injury, etc. For cave species, indicate hibernaculum, maternity, etc.): _____

External Measurements: _____

Person hours searching for Element: _____

Sampling Methodology (traps, seining, call count, etc.): _____

Specimen or photograph taken (collector/photographer, collection #, year, acquisition number and repository): _____

General Habitat Description: _____

CONSERVATION INFORMATION

Managed Area Name(s): _____

Is EO completely within boundaries of Managed Area(s)? Yes OR Partially

Owner(s): _____

Owner Comments (include address/phone number and other relevant comments): _____

Management Comments (needs for management, protection, monitoring, and/or research): _____

General Comments (include any associated species and/or any other relevant information): _____

Form completed by (last name, first name): _____ Date: _____

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Resource Science Division – Heritage Biologist, Missouri Department of Conservation,
1110 S. College Ave., Columbia, Missouri 65201. (573) 882-9880

HERITAGE BIOLOGIST USE ONLY

EO Rank: _____ Origin Subrank: _____ EO Rank Comments: _____

Reference(s) (include contact information for any new references): _____

Version Author (last name, first name): _____

TERRESTRIAL NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New _____ Update with mapping _____ Update without mapping _____
EO ID: _____ SRANK: _____ GELCODE _____ Gelcode Confidence Level (circle one): 1 2 3
Heritage mapper: _____ Heritage map QC'er: _____ Heritage Biologist: _____
Heritage mapping date: _____ Heritage map QC date: _____ Heritage Biologist Date: _____

ELEMENT IDENTIFICATION and LOCATION

Terrestrial Natural Community Name/Type: _____
Survey Site Name: _____
Directions to the survey site: _____

County(ies): _____
USGS Quadrangle name(s): _____
Township: _____ Range: _____ Section: _____ Quarter Sections: _____
GPS should be in NAD83, zone 15. If not, indicate: NAD _____ Zone _____
UTM: Easting (X) _____ OR: Latitude (N) _____
Northing (Y) _____ Longitude (W) _____
Explanation of possible GPS unit inaccuracy: _____

MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.
Person who marked the map (last name, first name): _____
Locational Uncertainty (buffer radius): The mapped location is within _____ Meters OR _____ Feet OR _____ Miles

ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): _____ Surveyor(s) (last name, first name): _____
Plant species composition (5-10 dominant or characteristic plant taxa by scientific name): _____

General Habitat Description (describe substrate, topography and vegetation structure including acreage. E.g., "Glade system with three openings of 1, 5, and 10 acres." If part of a natural community complex, describe what percentage of the mapped polygon is made up of this EO type. E.g., "30% of a complex with wet-prairie and freshwater marsh."): _____

Community Significance (circle one): Significant Exceptional Notable

EO Rank: _____ Origin Subrank: _____ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, floristic quality index values, etc.): _____

CONSERVATION INFORMATION

Managed Area Name(s): _____
Is EO completely within boundaries of Managed Area(s)?: Yes OR Partially
Owner(s): _____
Owner Comments (include address/phone number and other relevant comments): _____

Management Comments (needs for management, protection, monitoring, and/or research): _____

General Comments (include any associated species and/or any other relevant information): _____

Form completed by (last name, first name): _____ Date: _____

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Wildlife Division – Heritage Ecologist, Missouri Department of Conservation,
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): _____

Version Author (last name, first name): _____

AQUATIC NATURAL COMMUNITY REPORTING FORM

Complete relevant fields for which you have information

HERITAGE BIOLOGIST AND LAB USE ONLY

EO Report Status (check one): New _____ Update with mapping _____ Update without mapping _____
EO_ID: _____ SRANK: _____
Heritage mapper: _____ Heritage map QC'er: _____ Heritage Biologist: _____
Heritage mapping date: _____ Heritage map QC date: _____ Heritage Biologist Date: _____

ELEMENT IDENTIFICATION and LOCATION

Aquatic Natural Community Name/Type: _____
Survey Site Name: _____
Directions to the survey site: _____

County(ies): _____
USGS Quadrangle name(s): _____
Township: _____ Range: _____ Section: _____ Quarter Sections: _____
GPS should be in NAD83, zone 15. If not, indicate: NAD _____ Zone _____
UTM: Easting (X) _____ OR: Latitude (N) _____
Northing (Y) _____ Longitude (W) _____
Explanation of possible GPS unit inaccuracy: _____

MAPPING

Attach a map with the natural comm. location clearly marked in hard copy, digital, or shapefile format. No county maps, please.
Person who marked the map (last name, first name): _____

ELEMENT OCCURRENCE SURVEY INFORMATION

Survey Date (yyyy-mm-dd): _____ Surveyor(s) (last name, first name): _____
Aquatic assemblage (5-10 dominant or characteristic fish and/or aquatic invertebrate taxa by scientific name): _____

General Habitat Description (describe stream order, miles to headwaters, riparian corridor condition, composition of riffles and pools, and other physical factors): _____

Community Significance (circle one): Significant Exceptional Notable

EO Rank: _____ Origin Subrank: _____ EO Rank Comments (describe ecological integrity; i.e., resemblance to presettlement condition, lack of exotic species, presence of conservative species, biologic integrity index values, etc.): _____

CONSERVATION INFORMATION

Managed Area Name(s): _____
Is EO completely within boundaries of Managed Area(s)?: Yes OR Partially

Owner(s): _____
Owner Comments (include address/phone number and other relevant comments): _____

Management Comments (needs for management, protection, monitoring, and/or research; include RAM monitoring site number): _____

General Comments (include any associated species and/or any other relevant information): _____

Form completed by (last name, first name): _____ Date: _____

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Resource Science Division – Heritage Coordinator, Missouri Department of Conservation,
P.O. Box 180, Jefferson City, Missouri 65102. (573) 522-4115

HERITAGE BIOLOGIST USE ONLY

Reference(s) (include contact information for any new references): _____

Version Author (last name, first name): _____